

Webinar on Thursday, May 25, 2017

Dyslexia: Screening Tools, Progress Monitoring, and Parent Communication

<https://sfnh.webex.com/sfnh/lsr.php?RCID=1a305ec6028e33bc11b3d02cde361a55>

Transcription

1) Title Slide

Welcome to today's presentation, *Dyslexia: Screening Tools, Progress Monitoring, and Parent Communication*. The second presentation is a three part series. The purpose of today's presentation is to support school districts in selecting screening tools that are likely to identify students with risk factors of dyslexia. General education teachers will then ensure the administration of the tool. Sometimes and aide, specialist, or special education teacher administers the assessment. We will also provide information to teachers about how to communicate with parents about screening results and then how to monitor student progress and make future decisions about actions that will support learners. During today's presentation, the questions and answer feature is available for your use as questions arise. If we are able to, we will address question right away; if not, we will address questions at the end of the presentation.

2) Introduction to the Presenters

Hi, I'm Beth McClure and look just like right now. Actually, I'm a teaching principal and I can never tell how I'm going to look like at the end of the day. I'm glad to be here. I am also a fellow of the academy of Orton-Gillingham practitioners and educators. I have also served on the board of the NH branch of the International Dyslexia Association. I have a passion for working with people who have dyslexia, and I have done teacher trainings in Orton Gillingham and also taught Assessment and Learning Disabilities at the graduate level. Hi there. My name is Colleen Sliva. I am a principal and special education director with a long-standing passion for working with dyslexic students. I was originally drawn to the topic of dyslexia because of my daughter and her struggles with her differences in learning. And that's when I realized that dyslexia runs back through generations. I often watched the heart-breaking struggles my husband encountered and hoped that my daughter would not endure similar experiences. As I came a learning disabilities specialist, and reading and writing specialist, also serving as a past present of the NH branch of the International Dyslexia Association. My daughter and many other students have been able to learn from me effectively given the evidenced-based strategies we will cover in our next presentation. But today, we focus on screening. I do often wonder how my daughter's experience would have been different if she had been identified through screening in kindergarten. Perhaps she would have avoided the social emotional impact that this sort of learner often experiences.

3) Rationale for Early Screening

Now why is early screening recommended? Research shows that children who read well in the early grades are far more successful in later years, and those to fall behind often stay behind when it comes to academic achievement. The early identification of students with dyslexia, as well as the corresponding early intervention program for these students, will have significant implications for their future success.

4) Rationale for Early Screening

In the book Straight Talk About Reading, Hall and Moats state the following: Early identification is critical because the earlier the intervention, the easier it is to remediate. Inexpensive screening measures identify at risk children in mid-kindergarten with 85% accuracy. If intervention is not provided before the age of eight, the probability of reading difficulties continuing into high school is 75%.

5) Today's Objectives

Today, we will accomplish the following objectives: we will explain what is meant by evidenced-based screening and age-appropriate tools; we'll describe some common characteristics of screening tools- technical criteria and terms will be explained; we will also describe key literacy skills that correlate with developing dyslexia- these skills will be defined and examples of screening tools tasks will be provided; we will provide information about evidenced-based screening tools; and provide guidance in the implementation of screening in schools.

6) Evidenced-based Screening Tools are:

What is meant by evidenced-based when talking about screening tools? Well, the screening tools have been found to be effective across large groups in multiple research studies. The tool is found to be both reliable and valid for age and grade intended. The tool is able to provide percentile ranks to determine students' risk.

7) Dyslexia Screening is:

Dyslexia screening is a tool school chooses to use to administer to all k-1 students universally. Each school district is at liberty to choose their own screening tool. It is important to remember that a screening tool is not meant to diagnose screening dyslexia or any other learning difference. It is meant to determine if a student has risk factors for dyslexia or related learning disorders. Each school district gets to determine their cut score that qualifies a student for tier 2 or 3 intervention. Remember that no tool can provide 100% accuracy for predicting dyslexia or other related learning difficulties. That is not the purpose of the screening tool. The cut score should be determined in order to catch the majority of true positives or for students that would experience difficulty without significant intervention. District across the country vary, but a cut score of 37% which is recommended by the American Institute of Research and can be used by as district as a starting point to determine what their cut score should be for these tools. The cut score is designed to catch the majority of true positives, remember that is the student who is truly at risk, and will be seen through screening, without over categorizing students who would actually be false positives. Now a false positive is when a student appears to be at risk for dyslexia, but in actuality is not. Our goal as educators is to find as many true positives as possible so students don't slip through the cracks because of the screener. We want to minimize the false positives so we devote our resources for students truly as risk. If we use a cut score at the 37th percentile, students at the 37th percentile or below will receive intervention. Our purpose today is to discuss screening tools that identify students at risk for dyslexia in order to identify students who need targeted intervention so that they may develop good reading skills. Remember, no screening tool is perfect. Screening tools can present people in both false positives and false negatives. Also remember that the screening tools do not diagnose dyslexia or any other disorder. It is designed only to show students who are at risk. Screening tools may over identify students for intervention, but this is a preferred scenario rather to unidentification because the evidenced-based interventions can always help all students if they have been found caught armed.

8) Common characteristics of Evidenced-based Screening Tools

Evidenced-based screening tools are standardized, reliable, valid, and brief. Some of you may be aware of what each of these mean, but for others, we will provide a brief overview. We need to keep these important characteristics in mind when selecting a screening tool.

9) Standardized

A standardized test is a test given in a specific and standardized manner. Standardized tests are designed to have specific questions, administration, procedures, and scoring procedures. When a standardized test is administered, it is done so according to certain rules and specifications so that testing conditions are the same for all test takers. Standardized tests come in many forms. The main benefit of standardized tests is that they are more valid and reliable than nonstandardized methods. They often provide some sort of standard score which can help interpret how a score ranges from the average. A standardized test may be norm-referenced. With norm-referenced tests, the achievement of student is compared to all students with a range of demographic roots which results was analyzed statistically. Alternatively, a criterion-referenced test measures student performance with expected criteria for learning standards.

10) A Look at Reliability vs. Validity

Reliability is the degree to which an assessment tool provides stable, succinct results. Validity refers to how well a test measures what it says it measures. The picture represents when a tool is or isn't reliable and valid. The first test shows although the test reliably hits its mark, it's missing the point of the test of is its measuring what it's set out to measure and did not hit the bulls eye. The second test shows that it is aiming toward the target, but does not hit the target consistently; therefore hits the target in a spread fashion. The second target show that we aim for what we meant to aim for and shows the target consistently hit that mark. The dyslexia screening tools should be valid and reliable. If the tools is valid, it measures traits for the purpose and are likely to predict reading difficulties. In the case of reading difficulties, it should show the risk factors for dyslexia. Reliable tools provide pinnacle results that are not greatly assessed by different forms of assessment or administration by different assessors. It is recommended that districts keep these concepts in mind when selecting your screening tool.

11) Brief

The screening should require little administrating time. It should be brief, typically around 20 minutes. Schools may choose to use additional screeners depending of the state the child is in.

12) Important Literacy Skills and Typical Assessments

Next we will define important skills for screening tools to determine students risk for dyslexia and related disorders. We will provide screening tools that assess each of these skills. We will describe literacy skills: phonological and phonemic awareness, sound symbol correspondence, alphabet knowledge, decoding, rapid naming, and comprehension. Phonological awareness is the overarching term for word awareness, syllable awareness, on-set rime awareness, and phonemic awareness. Word awareness and syllable awareness are self-explanatory by the names of their terms. In onset-rime, the rime is the initial sound in the word before the vowel and the rime is the part of the word from the vowel onwards. Not all words have onsets, but all words have rimes. The fourth aspect of phonological awareness is phonemic awareness. It is the most potent predictor assessed in learning to read. As a side note, brain research has shown that with effective intervention, phonemic awareness can be developed. In fact, all aspects of phonological awareness can be taught.

13) Phonological and Phonemic Awareness is:

Phonology is the study of sounds and how they work in their environment. Phonemic awareness is the ability to attend to, discriminate, remember, and manipulate sound units at the word, syllable and sound level. For example, at the sounds level, we could say, “How many words are in the sentence?” “Get ready to count.” It is important to screen all students in November each year. At the word level, “Do these words rhyme? “Graph, giraffe, staff.” At the syllable level, we could ask, “What is the last syllable in phonological?” At the phoneme level, “What is the final sound in dyslexia?” Hopefully you detected a theme is those sample questions. A phoneme is the small unit of sound in a language. It can be recognized as being succinct from other sounds in a language. For example, “These two words differ by one phoneme, dig, dip.” They differ by the phonemes “g” and “p.” Phonological awareness is the understanding of the phonemes in the structure of words. Phonemic awareness, or the ability to segment words into the structural sounds, is an important part of phonological awareness.

14) Examples of Phonological and Phonemic Awareness Assessment Tasks

Let’s look at some examples of phonological and phonemic awareness assessment tasks that some of the students may have during the assessment. Identify the sound-what is the first sound in ball. Or, segment-tell me the sounds in sick, “s” “l” “k.” Blend-blend the sounds together to make a word “p” “a” “th”-path. Delete-say fast without the “s”-fat (oh I don’t like that one). Syllable awareness is-how many syllables are in hippopotamus. Word awareness-how many words are in this sentence- we saw a huge cat. And, onset-rime awareness-say “chap” and take out the “ch” and put in “t”-say the new word-tap.

15) Alphabet Knowledge

Students’ alphabet knowledge is usually assessed in early reading screening. Alphabet knowledge is the ability to name, distinguish shapes, write, and identify the sounds of the alphabet. For kindergarten students, it is a strong predictor of reading success, because once the student learns the letter names, the letter sounds is the next sequential step. In an alphabet knowledge test the test gives a line of letters like the ones that appear before you. The student is asked to name letters, or provide the letter name. This type of task is often times yielding information about alphabet knowledge and rapid naming. So a student give this task would respond, n, p, t, d, l, f, r, x, k.

16) Sound-Symbol Knowledge is:

This is knowledge of the various sounds in the English language and the correspondence in the letter or the letters that represent that sound. For example the sound “t” corresponds to the letter t. Other sounds like “k” and correspond to several letter combinations such as c, k, ck, and ch. We build an association through the sounds in our language and the letters that represent those sounds. When we read, we look at letters and translate them into speech sounds. When we spell, we think of speech sounds and translate them into letters. Remember if you attended the last webinar, I pointed out that the language function of speech is really what our brain was originally built for and reading is mapped onto those speech areas in our brain. And you probably read this slide without even thinking about it. Especially the part that said read this sentence in English. It’s effortless. You might wonder why I put it there. You probably stopped when you got to the bottom line, unless you can read Napli. Those Napli symbols have a sound associated with them, but that does not help you because the symbols are unfamiliar to you. It is hard to probably tell when one syllable ends, and when another one begins. Once you learn the symbol, you would need to learn the sound that associates with the symbol.

17) Examples of Sound Symbol Knowledge Assessment Tasks

In a sound symbols knowledge subtest, a student is asked to give the sounds of letters as the ones provided here. The student has typically one minute to produce as many sounds as they can, so this is a type of a rapid naming test, as well. Percentile scores are then provided.

18) Rapid Naming is:

Rapid naming is the ability to name aloud a series of familiar items. It is the ability to provide verbal information with the sounds by giving the appropriate letter names to common letters, pictures, and digits. This is the ability to retrieve associative sound from a visual cue. In order to become skilled users of language, we must be able to use names automatically. Communication with others would be a struggle if we are not able to use sounds associates with objects. Deficits in rapid naming directly correspond to reading difficulty. Research shows that those experiencing reading difficulties also have problems with rapid naming.

19) Examples of Rapid Naming Skills Assessment Tasks

In a sound symbol knowledge subtest, a student is asked ... when assessors assess, they are interest in how many letters and number students can name within a time period. Students' performance is compared with other students' performance to give a percentile rank. A student may be presented with a list of letters and numbers like what we see here. A student is asked to name as many letters as they can in one minute, or in this case, letters and numbers. In this way, alphabet knowledge and name speed are measured. Other rapid naming tasks can include combinations are letters and numbers like what you see in the bottom row here.

20) Decoding is:

Decoding is the ability to read unfamiliar words by using letter-sound knowledge, spelling patterns, and chunking words into smaller parts such as syllable or word names. Decoding is also called word tasks. It is important to have sufficient decoding skills before third grade.

21) Examples of Decoding Assessment tests

Decoding tests use nonsense words or words that look like real words, but have no meaning. So a student must rely on decoding skills rather than memory of words already learned. Some tests present only real words for the student to read. In the example provided, the student is asked to read the make believe, or nonsense word. In this case, the student should respond "pim" "jat." A student is given one minute to read as many nonsense words as possible to provide a percentile score.

22) The Path to Fluent Reading for Meaning

Some of you may be familiar with this graph from Scarborough. I love it. It brings together many facets of language. In order for student to comprehend language they must on syntax, how to incorporate the meaning, and understand different text structures. The background knowledge students bring to reading effects their comprehension as well. Students can have great knowledge, but if they can't decode the words, they will not understand the text. For word decoding, student needs to have developed phonological awareness, decode based on the sounds and structures of the words, and recognize sounds by vocabulary. Students with risk factors for dyslexia are likely to have strong oral language skills, but have their comprehension affected by difficulty decoding and that would be the decoding impacting the comprehension. In other words, their decoding difficulty is what creates their reading difficulty.

23) Examples of Reading Comprehension Assessment Tasks

Now a number of you undoubtedly know how to test reading comprehension. Questions need to have required students to have read the text. At the kindergarten level, students tend to be more concrete, so the questions are at the concrete level. At the first grade level, the question can be a little more

inferential. So, for example, at the kindergarten level we would ask questions about certain details such as, for example, “Where did the cat sit?” In first grade, students are a little bit higher, so you can work a little more with higher order thinking skills. We can ask them to answer leading questions, draw conclusions about text. For example, “Why did the boy walk away?” At all levels, questions about vocabulary might provide helpful information. Vocabulary knowledge might impede or enhance a student’s comprehension. Another way to assess comprehension might be to give a selection of multiple-choice questions after reading a passage. The questions can be structured at any number of levels such as higher order thinking skills.

24) Evidenced-based Screening Tools

This slide is here just with a link. The link is to evidenced-based screening tools. The American Institute of Research has a chart of evidenced-based screening tools. This is a site with a lot of excellent resources. Each tool is rated as to its generalizability, its reliability, and validity. I would take you there, but it is a really large chart and you have to scroll back and forth to view it. So, like I said in the last webinar, for everyone who attends, I will send out a PDF with live links for the different links that you see on the screen and that way you can go there yourself and explore it. When you go to the site and look at the screening tools, there will be different circles. Some are fully colored in which means there is convincing evidence. Half colored in circles means it is partially convincing, and the uncolored circle means it is unconvincing. There is also information on administration and scoring times. I also want to make you aware that the stakeholders which is a group volunteering their time to meet at the Department of Ed and prepare a resource guide which will have vetting tools that you can use. That is expected to be complete by June 30th. So, more on that later.

25) Examples of Evidenced-based Screening Tools

In the next part of the presentation, I will be describing four screening tools with the risk factors indicated on the left hand column and the measures related to the risk factor indicators on the right hand column. The selection of these four screening tools was not random but it will also not be considered an endorsement. These reflect four of the tools used by New Hampshire school districts. We thought it would be best to give information on the ones used out there to help the most people. There is DIBELS Next, AIMSWebPLUS, STAR which is Renaissance Star Reading, and PALS which is an acronym for the Phonological Awareness Literacy Screening. DIBELS Next, which you may be aware, was developed by the University of Oregon, AIMSWebPLUS was developed by Pearson, STAR was developed by Renaissance, and PALS was developed by the University of Virginia.

26) DIBELS Next Assessment Alignment

So the next set of charts, including this one, was developed by us to help school districts using these tools to analyze information for risk factors for dyslexia. So our thinking was that when you got the results back from the measures or screening tools, you might want to related those back to the risk factors to use judgement on if a students does exhibit risk factors for dyslexia. So has you can see, on the left column we have lists risk factor indicators and on the right hand column we have listed related subtests that relate to each risk factor. We have also provided the grade levels that the test creator recommends administration. Now the RSA indicates screening at the kindergarten or the first grade level upon enrollment and by November 30th. So our thought was to bring the grade level down to which you would be administering the tool of where it would be applicable for each of the measures.

27) DIBELS Measures for Fall of Kindergarten

Use of the DIBELS measure and, obviously, this would be DIBELS Next, measures for the fall of kindergarten. So, you will have access to these charts. I don’t need to read them for you. But you can

scan through them now to see the measures that can be administered in the fall. You notice that there are three measures in the DIBELS Next that are appropriate to administer in the fall benchmarking.

28) DIBELS Measures for Fall of First Grade

If a district decides or wants to measure, these would be the subtests you would use and the corresponding risk factors. Self-explanatory.

29) aimsWebPLUS Assessment Alignment

So let's look at the next one. The aimswebPLUS assessment shows all the measures and the related risk factors for both kindergarten and first grade combined. The benchmarking periods in the fall are September 1st through October 15th, in the winter and in the spring. So benchmarking as with DIBELS Next and aimswebPlus uses the same passages so there isn't a factor of test, re-test difficulty. Notice that within the aimsweb guidelines, there are not as many tests to administer at the beginning of kindergarten. Now, as you know, alphabet knowledge, even at the preschool level, is a good indicator of reading difficulty, but that's also why it is discontinued in first grade. For the mid-year benchmarking there are other subtests to administer that give an indication of risk factors.

30) aimswebPLUS Measures for Fall of Kindergarten

So, let's look at the measures for aimsweb in the fall of kindergarten. The aimswebPLUS has three measures that related to the risk factors that you can give within the first benchmarking period.

31) aimswebPLUS Measures for Fall of First Grade

For the students in first grade, there are more measures that can help you tease out the different risk factors and you can see them there. The aimsweb plus version did take away the portion for the nonsense words for decoding.

32) Reading Chart

This is a chart that we have temporary permission to use it for this webinar. I really wanted you to see it because it provides an overview of when to test at each grade level. So across the top-I hope you can read it, I enlarged it as much as I could. Across the tops of the chart are the different grade levels and the yellow highlighted rows are only the measures you can use for benchmarking periods. The ones that are not highlighted can be used for both progress monitoring and benchmarking. Across the bottom you will see the screening times and the progress monitoring time. The screening administration time is increased because of the multiple measures that you would use at that time. I really like this chart because it shows what we can administer at different times for grade levels, particularly, in the areas that we are focusing on today for kindergarten and first grade.

33) aimswebPLUS Features

The aimsweb features that I research and found are that there is a risk identification feature. All scoring is done online by the teacher. Paper stimulus books can be printed or ordered from the publisher for grades k through one and printed out for the Oral Ready Fluency which can only be administered in grade two through 8. You can set the percentiles for your tiers and customize your cut scores. Goal setting feedback is embedded within the program and you can assign an intervention to the goal-setting area of the program. Off grade progress monitoring if you have a student reading below grade level is included within the program.

34) STAR Early Literacy (Grades K-3) Assessment Alignment

Okay. Hopefully you're not getting too tired of listening to my voice, but onto the STAR Literacy Assessment. This can be given three to five times per year or as often as once per month because it is computer adaptive. The screener does not have a test for rapid naming skills. According to the STAR publishers, it yields a predictive fluency reading score including repair strategies, reading rate, and reciprocity.

35) 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. 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.

36) Text Comprehension: Sample Strategies

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. So, comprehension monitoring which 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. Cooperative learning is a practice wherein readers work together to learn strategies in the context of reading. 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. The use of graphic and semantic organizers allows the reader to represent graphically by writing or drawing the meanings and relationships of the ideas that underlie the words in the text. Teaching about text structures both nonfiction and fiction text 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. These are all parts of the strategy for text structure. Question answering is an approach in which the reader answers questions posed by the teacher and is given feedback on the correctness. Question generation is a strategy in which the reader asks himself or herself questions and answer these questions while reading. And summarization is a practice in which the reader attempts to identify and write the main or most important ideas given text. The most proficient readers use many strategies while reading. The use of many strategies is effective when the student uses the procedures as needed in context. So before I go to the next slide, I'd like you to take a moment to see how many of the big 5 for reading you

can remember and one of them we just finished talking about. So take moment and jot down as many as you can. I'll give you one minute. Okay. I'm changing the slide and you can check your answers.

37) Name the "Big 5" for Reading

I know that many of you are interested in teaching reading and are very knowledgeable. I wanted to see if you had these memorized. There actually have been multiple research studies indicating that university professors cannot just name all five of these off the top of their head. So, you're ahead of the game...at least with these.

38) Choosing Interventions for MTSS

Okay. Let's talk about choosing interventions for multi-tiered system of support. All tiers need to incorporate all aspects of the big five for reading. We know that phonemic awareness is a crucial skill for all students learning to read, and there is a greater emphasis at the kindergarten and first-grade levels. Systematic phonics instruction which is linked 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 the students can free up their working memory to think about what they are reading. Vocabulary instruction has been identified as an important contributor to comprehension. Text comprehension is, after all, our purpose for learning to read, and needs to be a part of instruction. Let's never forget that. The supplemental instruction provided for our students at risk for dyslexia should be aligned with the scope and sequence being used in the classroom. An interesting 2010 study was done by Wonder-McDowell with 133 at-risk second-grade students from eleven elementary schools. You'll hear some interesting results. Students were randomly divided into control and treatment groups. Both groups had supplemental reading instruction for 20 weeks with a curriculum that included the big five, which we just reviewed. One group was taught with a curriculum aligned with classroom instruction, and the other was taught with an unaligned curriculum. The group whose instruction was aligned had statistically significant higher posttest scores on DIBELS oral reading fluency, Woodcock Reading Mastery Test Revised for word identification, word attack, word comprehension, passage comprehension, reading comprehension, and total reading composite scores. That's a real exciting impact for reading just by aligning the curriculum.

39) Students at Risk for Dyslexia/ Reading Failure

So, let's take a look at what students at risk for dyslexia or reading failure may need. They need teachers who can provide effective classroom and tier two instruction in the big five. They need teachers who are knowledgeable and trained in the structure of the English language. You can't teacher without teacher who have been trained in effective reading practices. When I graduated with my Master's in reading disabilities, it was only because of the special development that I understood it. They also need teachers who have been trained in effective teaching practices for phonics instruction and had a practicum.

40) Students identified as at risk for dyslexia need more than a Tier I for a 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 National Reading Proponents that we just reviewed. These identified students need to have the tier one intervention with their peers, but they also need additional targeted intervention.

41) Tier II Students with Risk Factors for Dyslexia

Students at risk for Dyslexia need tier two 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 individuals identified as at-risk but are recommended to be at least 2-3 times per week, although many schools plan on 5 times per week. Tier two 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 just take a few moments to run through the components for effective teaching.

42) Identify the Components of Effective Multisensory Structured Language-Based Teaching

Effective Multi-sensory Structured Language-Based Teaching includes instruction in the structure of language. It will contain simultaneous multisensory visual, auditory, kinesthetic, and tactile instruction throughout its design. It will be systematic and cumulative in its arrangement. Instruction will be explicit or direct. Diagnostic teaching is used. And, instruction is both synthetic and analytic in nature. So, what does each of these concepts mean?

43) Instruction in the Structure of Language

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. Instruction includes 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-a 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, an important part of instruction-a 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. That is interesting to know because the last three have impact on reading comprehension as we go through and teach them about the structure of language.

44) 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.

45) Systemic 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. Each one of these is built upon each other. Concepts are taught in order and then build on each other.

46) 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 questions that elicit student response in explaining their actions. And, I can give an example from real life of explicit and direct instruction that still actively involves the students. So, it's exciting, and I'm not saying it's exciting when a student makes an error, but when a student makes an error, we can lead them through a thought process that leads them 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 when we were having to do a lesson and I was leading the student through through socratic questioning and the student said, "Don't use socratic questions with me and it was great and I was floored because I didn't realize what was actually doing and I got that feedback.

47) Diagnostic Teaching

Diagnostic teaching is used. The teacher provides instruction that meets 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, a 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-teach and targeted practice.

48) 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 build a stronger and faster neural connection to help the student read more fluently. So for example, the teacher uses 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).

49) 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 to read well, and the RSA requires it. So let's take a quick look at that RSA.

50) Putting Effective Interventions Into Practice...When?

So, putting effective interventions into practice and 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.

51) Interventions: Approach vs. a Program

Let's talk about interventions, and I'll discuss key intervention that work well. First off, I want to talk about what is an approach versus a program. Well, an approach differs from a program in significant ways. Most of them have value if they are effective. Although both an approach and a program are related to delivery of instruction, an approach is a way to present detailed information that is guided by principles of instruction. So, Orton-Gillingham is considered an approach, but it is not a method or a program evidence-based interventions. An approach differs from a program in significant ways. Both have value if they 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 is a way to present instruction that is guided by principles of instruction and has a flexible structure. 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 teachers requiring a program will have to provide 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.

52) Questions to Ask When Choosing an Intervention

Okay. Let's look at some questions to ask when choosing an intervention. We need to answer yes to all of 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 in the early

elementary grades K-2 is instruction in phonemic awareness and phonics. It is huge. It is also the area in which students at risk for dyslexia struggle. Therefore, we need to ask ourselves.

53) Examples of Evidenced-based Interventions

So, when looking at evidenced-based interventions, there is not really a 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 multisensory structured language programs available on the International Dyslexia Association website and when I send the PDF version of the presentation, the link will be live so you will have an active link to go to and look at more. So we just 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 interventions and hopefully we have given you some pertinent questions to ask so you can make educated judgements. We have provided a link to a document on the International Dyslexia Association's website that lists some other possible sources for planning your interventions. Today we will look at five 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 considered an approach. The others are programs. Programs are valuable tools in the hands of teachers who understand the principles underpinning the Orton-Gillingham approach.

54) Orton-Gillingham (Approach)

We've provided a link at the top for the Orton-Gillingham academy for educators and we can safely answer yes to all of those questions.

55) Wilson Reading System

This is the Wilson Reading System on a grid.

56) LETRS

This is LETRS and it bears some explanation because even though there are some no's there, I certainly want to encourage you to research this. It is evidenced-based and 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. While there is teacher training in New Hampshire, there is not a practicum component. The module is considered sufficient by the developers. There is a certification for trainers for 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. So LETRS, in speaking with them, is designed for teachers to use existing practices integrated into their curriculum.

57) Lindamood-Bell (LiPS, Seeing Stars)

Lindamood-Bell has two programs that relate to reading decoding, phonics, awareness of phonic. The Lindamood sequencing, also known as LiPS and Seeing Stars, which help with teaching irregular words. So we can say yes to all of these things, but is there 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 not meant to disway you from looking at this. I personally have used it with tremendous success.

58) Project Read (Phonics, Linguistics)

Project Read has materials and training in phonics and linguistics. I've 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 or DVD and although there is not a practicum component, if you have any teachers with experience in this program in your district, I would encourage you to involve them in coaching. So, this is one way that you can overcome the practicum component if you have teachers in your district trained. There are certainly a lot of materials available also.

59) 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 system of support's problem-solving process is used to evaluate interventions and decide the next steps to take. The intervention team continuously asks: what do we want the student(s) to know, understand, and do; what is the problem; why is the problem occurring; what are we going to do about; did it work; is it working?

60) Summary: Evidenced-Based Intervention for Dyslexia

So now that we are nearing the end of our presentation To sum up what we have covered in today's webinar, we described what comprises evidence-based reading instruction, specifically the big five, we described multi-tiered systems of support for reading instruction, with a particular emphasis on the core, tier one instruction, and tier two targeted instruction, with an emphasis on the Systematic Phonics that students at risk for dyslexia need to have. We provided a number of research references to support its efficacy. We identified the components of an effective Multisensory Structured Language-Based reading intervention.

61) Questions and Answers

So now we would like to scroll through the questions and give answers that people have asked questions. To Colleen Sliva-have you written answers? We will scroll through the questions and you can use the Q & A function to ask any additional questions you may have. So, we'll continue our webinar as you ask questions and also please remember to fill out the survey at the end. It is very brief. There is a question about what materials we would suggest for phonemic awareness instruction. I have used Lindamood phonemic sequencing. And, actually what I will do is look up some other resources for students. I'll send that out in the email either tonight or tomorrow to give you some additional resources on phonemic awareness. Are there any other questions before we leave? That was our main question. Okay. Well, I thank you so much for sticking with us a little bit longer than an hour and I look forward to meeting some of you and some of your colleagues at our in-person training coming up-Monday, at Colby-Sawyer- 8:30-11:30 and also 12:30-3:30. Thank you.