An Early Warning System to Support Grade Level Reading

Screening for At-Risk Readers, PK to 1

HB 910 / SB 548

Q: What data supports early reading screening?

A: Identifying students at-risk for reading failure, either before formal schooling begins or in kindergarten has been demonstrated as a reliable, and valid method for predicting later reading impairments (Catts, Nielsen, Bridges, Liu, & Bontempo, 2015; Ozernov-Palchik et al., 2016). For example, a recent study conducted with over 1200 students found that performance on screening measures in kindergarten and pre-kindergarten reliably predicted reading ability at the end of first grade. (https://www.screenandintervene.com/how-why-of-screening)

Q: Which students will be helped by the screening bills?

A: All students will be screened and students at risk for reading difficulty will be further evaluated to determine what instruction they may need. At risk groups include:

- English learners
- students with dialectical differences
- students from impoverished backgrounds, and
- students at risk for dyslexia and reading disabilities

Q: Who developed the screening bill language?

A: Over a two year period, experts in reading science provided research and input to the Maryland Dyslexia Task Force members, who developed the screening framework delineated in the bills.

Q: Who participated in the Task Force?

A: Amy Siracusano, Calvert Co. Public Schools, Robin Szymanski, Carroll County Public Schools and MSEA, Lavaunda Roundtree, Anne Arundel County Public Schools, Superintendent Scott Smith, St. Mary's County Public Schools, PSSAM; additional organizations included Maryland School Psychologists Association, Delegate Anne Kaiser, Senator Joan Carter-Conway (through a representative); heads of 3 private schools that focus on reading instruction and dyslexia; MD Association of Boards of Education (MABE) appointed a member who chose not to participate.

Q: Does the bill language target a particular screening instrument and/or company?

A: No, there are many companies who offer acceptable screeners. See table below titled: **The Tools: Commonly Used Screening Instruments**

Q: Does the bill language target a particular intervention sold by specific company?

A: No, there are many companies who offer acceptable instructional programs or training.

Q: Where did the phonemic/phonological awareness instructional components originate?

A: The instruction requirements originated with reading research:

1. National Reading Panel, 2001
2. Final Report of the Task Force to Study the Implementation of a Dyslexia Education Program: page: 11, Recommendation #4, and Principles and Elements of Instruction, p. 105 - 108, Task Force Report.
3. National Reading Panel: Lighting the Way (provides more detail on why it matters)
4. Foundational Skills to Support Instruction, What Works Clearinghouse

5. Federal Law: ESSA and IDEA are aligned to require that reading instruction in the United States teach the following: phonemic awareness, phonics, vocabulary, fluency, and comprehension using explicit and direct teaching techniques. This law is still in effect and did not sunset or "die" with NCLB.

Q: Will Districts Need to Hire More Staff to Screen and Provide Interventions?

A: Districts report that they need additional staff overall particularly to work with at risk students. This bill anticipates that districts will be able to provide screening within the existing staffing framework.

Q: Will school districts be required to purchase new instructional programs?

A: Many school districts already own acceptable instructional programs and others are providing teachers with training that includes the structured literacy approach. Some districts own acceptable reading programs but do not implement them with fidelity. A few districts use effective reading programs and provide teacher training in structured literacy including but not limited to:

- Fundations (Wilson Reading) -- Tier I and II core instruction and targeted instruction (St. Mary's and others)
- Orton Gillingham Approach -- Baltimore County
- Spire (Sopris-West)
- Readsters (Readsters Co) (Calvert Co.)
- LiPS, Lindamood Bell (many counties provide)
- Great Leaps (Baltimore City, through the Literacy Lab Tutors)
- LETRS: Language Essentials for Teachers of Reading and Spelling (Baltimore County)

Q: How will a school district know which screeners meet the law's requirements?

The bill requires MSDE to develop a list of acceptable screeners that meet the screening requirements listed in the bill as well as a list of acceptable instructional programs that meet the listed criteria. School districts can choose the screeners and/or the instruction they want to use.

Q: Does the legislation create an unfunded mandate for counties and districts?

A: No. It sets a framework for best practices to address reading difficulties predominantly found in at risk populations including minorities, poor students and students with characteristics of reading disabilities like dyslexia.

- All schools and districts are supposed to screen students for reading difficulties and should already offer interventions that include phonological awareness and phonics using effective teaching practices;
- When districts show reading gaps for at risk students that reach 90%, it's imperative to examine program purchasing, screening, educator training, and intervention practices and make adjustments.
- Screening is relatively inexpensive and is a best practice. The cost for DIBELS or any other screener is low compared the the cost of continuing remediation.

Q: What is Phonological Awareness (PA) and why is it predictive of reading difficulty?

A: Phonological and Phonemic Awareness is part of the "Science of Reading" that requires students to FIRST be phonologically aware of the structure of sounds BEFORE they learn to map those phonological structures onto letters (typically known as PHONICS). In college of education coursework, in programs purchased by schools, in teacher knowledge, this is typically the component that is given little notice and attention despite the fact that PA is the most basic building block skill needed for reading and literacy for all students, but especially for struggling readers and at risk populations.

The pre-literacy building blocks of PA include:

1. **Discrimination work** -- "Tell me if these two words that you hear [not see] are the same or different? Ship / chip. Hold up two blocks that are the same color if they are the same, or two blocks that are different colors if they are different."

2. **Deletion work** -- “Can you say the word "shirt" without the /sh/ sound? On this water bottle, we will slide our fingers from the top of the cap down to the bottom of the bottle saying /sh/ when we are sliding down the cap and /irt/ when we are sliding down the bottle itself. Take off the cap on the bottle the part that said /sh/. What sounds are left?” “Can you say the word "eyelash" without “lash?” Let's put our hand under our chin for each of the two word parts, "eye" and "lash. Now say the word without the "lash" so your chin only drops once while you are saying the first syllable or word part.”
3. **Segmentation work** -- “Listen to the word "shape." What are all of the sounds that you hear [not see] in that word. Let's pick up a ball of play dough for each one of these sounds. /sh/, /ay/ and /p/.” “Listen to the word [not read the word] "friendship." How many syllables or word parts do you hear in that word. Let's jump up for each one of those word parts.”
4. **Blending work** -- “Listen to those sounds and tell what word they make when they are put together. Let's stretch a slinky slowly to say the sounds separately /sh/ /o/ /p/. Then stretch out the slinky quickly to say them all put together "shop.”
5. **Sequencing work** -- “Listen to the word "shack." If the last sound came first, and the first sound came last, what word would you make? Let's lay out different colored crayons for each of these sounds /sh/ /a/ /k/. Then make the last crayon with the sound /k/ switch places with the first crayon /sh/ and see what new word we can make.” “Listen to the word "wishing." What is the first word part or syllable in that word? What is the second word part or syllable in that word? What would that word say if the two syllables or word parts switched places? Let's make the tennis ball say "wish" and the bean bag say “ing." Now switch them. What silly word do they say now?”

At risk students often never learn the phonological structure of words which affects their ability to then decode (read) and encode (spell) with letters once they begin to read to learn.

Q: What is rapid automatized naming and why is it predictive of reading difficulty?

A: Rapid Automatized Naming (RAN) refers to the automaticity with which a child can retrieve the names of a set of serially presented symbols such as objects, colors, letters, or numbers. RAN parallels the cognitive and neural demands of fluent reading, and is a strong early predictor of later reading fluency (Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). The predictive power of RAN also varies depending on what stimuli are used (e.g., numbers, pictures, or letters), with colors and objects being stronger predictors in earlier grades (Norton & Wolf, 2012). **If these skills have been previously screened for, repeated administration is not necessary. RAN research was first conducted in 1972 by Martha Bridge Denckla at Johns Hopkins University.*

Q: What is Phonics and why is it Included in early screening and literacy?

A: Phonics, or sound-symbol association, is the skill that involves the ability to coordinate a sound to its corresponding letter or letter combination. Phonics is an upper level skill - students who do not have solid phonological awareness and phonemic awareness skills will do poorly associating print with sounds. Sounds come first, then print.

- For reading, students must be able to read/say the right sound when they see letters in addition to blending sounds.
- In spelling, students need to be able to spell/write the letter when they hear the sound. Written language can be compared to a code, so familiarity with the sounds of letters and letter combinations will support students ability to decode new and novel words.

The National Reading Panel has specified that phonics instruction should be explicit, systematic, direct and sequential. Phonics instruction should begin as soon as children can identify two or three phonemes in spoken words and when they know their alphabetic letters. Typically, this is during the last half of Kindergarten. It should continue until students know all the major sound/symbol correspondence and syllable types and can make a good attempt to decode any unfamiliar words.

Q: Is screening time well spent for teachers?

A: Yes. Teachers already spend time conducting reading screeners and assessments and many do not screen for the components needed for early reading. Without the correct data, teaching time is spent administering assessments to students that don’t provide any information on reading risks or pinpointing where to begin instruction for a student.

The screening process and intervention framework provides educators with tools to evaluate what a student needs to learn to read. Approximately two-thirds of students will need nothing more than a brief screening or informal diagnostic to be sure they are on track. The remaining one-third of students will need supplemental instruction targeted their weak spots. The screening framework allows educators to help children experience reading success. Students who fall behind can present behavioral challenges and need extensive supports to complete assigned tasks -- this is demoralizing and demands teacher resources.

The screening and informal diagnostic process yields data that helps pinpoint where instruction should begin for each student; this data then helps a teacher decide what instruction to provide. HB 910 and SB 548 direct MSDE to develop a screening protocol based on the science of reading and provide a list of qualified screening instruments from which each district can choose. MSDE is also directed to review the list of screeners and interventions on an annual basis to update the list to include a wide range of options for local districts.

Q. What does it mean when a student is "at risk" for reading difficulty?

A: Screening instruments are designed to indicate whether or not a student is "at risk" for reading failure. If a student is considered "at risk," an informal diagnostic is given so a teacher knows where to start supplemental reading instruction. Supplemental instruction is extra help targeted to a student's needs -- once the student is meeting grade level benchmarks, they would not require the supplemental instruction. This student would be screened in the next grade to be sure that they remain on grade level. Some school systems combine a screener and an informal diagnostic in one instrument while others use a number of different tools. Many (most) do not know what to do with that data once it's collected.

Q. Does this legislation dictate the type of reading intervention used by school systems?

A: No. The elements and principles of evidence based instruction are included in the bill. MSDE is required to develop a list of instructional programs or approaches that meet these criteria.

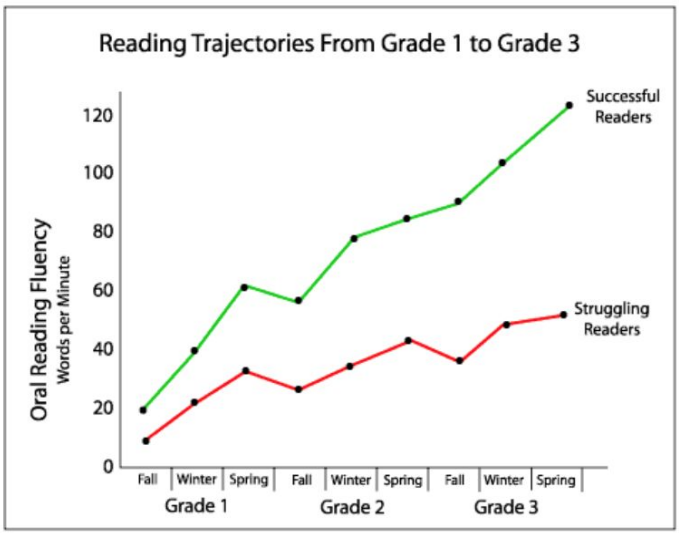
Q. Why does Maryland need an early screening bill?

A: The critical period for literacy development is from birth to age eight because of the rapid growth of the brain and its response to instruction (Nevills & Wolfe, 2009). It is essential to identify the instructional needs of struggling students as soon as possible to "catch students before they fall" (Universal Screening, K-2, IDA, Torgesen, 1998).

Thus, educators must understand:

- The basic principles of universal screening
- Findings from cognitive science that are the basis of reading and literacy development
- Potential risk factors (i.e., "red flags") that indicate potential for common reading problems, including dyslexia
- Struggling readers who are not identified and provided effective instruction by the end of first grade, are less likely to attain grade level proficiency (figure 1)
- Late identification of reading difficulties between 3rd-10th grades means fewer children catch up to grade level (figure 2).

Figure 1: Students are often identified for special education between 3rd-10th grade after failing to achieve grade level standards.



Fewer than one child in eight who is failing to read by the end of first grade ever catches up to grade level.

From the Big Ideas In Beginning Reading Web Site, University of Oregon, http://reading.uoregon.edu/

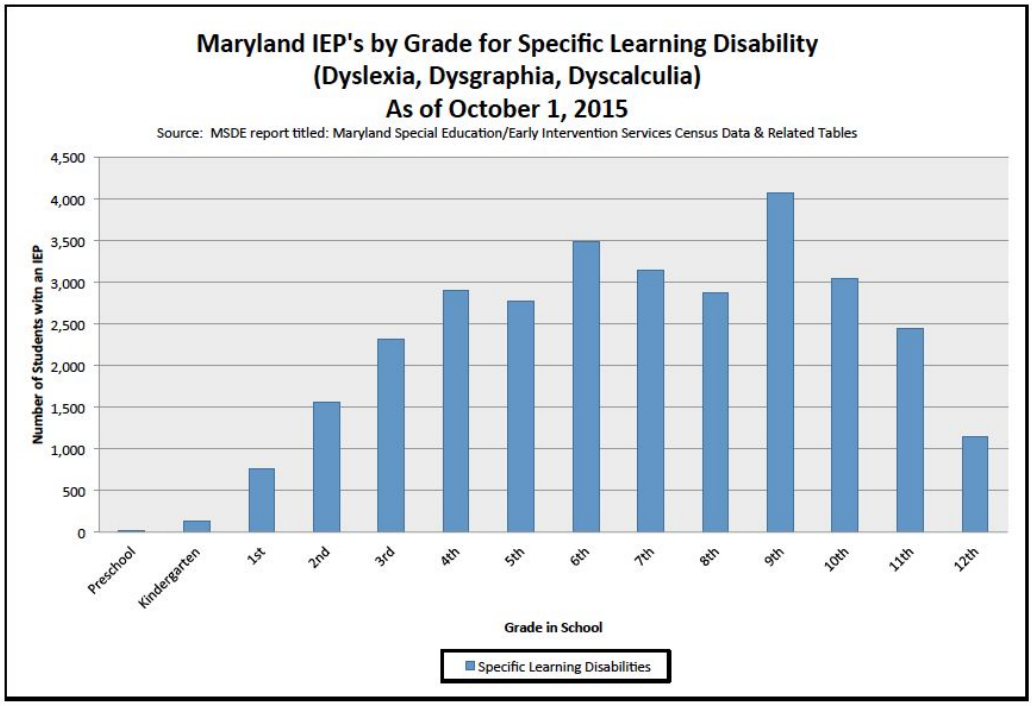


Figure 2: Students are often identified for special education between 3rd-10th grade after failing to achieve grade level standards.

FACTS ABOUT SCREENING in HB 910 and SB 548

The Solution: Early Screening & Intervention

Legislation to require **screening** in early elementary school promotes identification of students who are at-risk before negative outcomes of reading failure begin. The bill outlines direct, targeted reading and literacy **interventions**, as well as specific **progress monitoring** procedures to promote grade level reading success.

Grades Screened

Students will be screened in **Pre-Kindergarten, Kindergarten** and **1st grade** for reading difficulties. Students in 2nd grade and beyond will be screened if/when indicators of reading difficulty emerge.

How to Identify Signs of Risk

Difficulties with early language skills - including talking, pre-reading and pre-writing skills - are "red flags" for future reading problems. These struggles can be identified during early elementary and even preschool years. Left unidentified and unaddressed, they can compound over time, contributing to academic, emotional and behavioral struggles in the classroom.
Frijters, Lovett, Steinbach, Wolf, Sevcik, & Morris, 2011; Helland, 2016; Kamhi & Catts, 2012; Magnusson, & Naucler, 1990; Manis, F. R., Seidenberg, & Doi, 1999; Torgesen, 1998

- Difficulty perceiving sounds and sound sequences in words (phonological awareness and phonemic processing)
- Difficulty understanding and generating rhyming words
- Difficulty with "word finding"/retrieving words
- Difficulty remembering:
    - Letter names
    - Number names
    - Days of the week, months of the year, seasons
    - Math facts
    - Lists of information on a topic
- Difficulty articulating words

Reading Screening Components by Grade

Pre-Kindergarten

Specific components will be administered per instructions in the chosen screening instrument/s:

- Phonological Awareness and phonemic processing skills;
- A normed, rapid automatized naming assessment *may* be included. Done once.

Kindergarten

Specific components will be administered at the beginning, middle, and/or end of year, or until benchmarks are met. Kindergarten components include PK components and::

- Phonological and Phonemic Awareness skills
- Identification of first, last, and medial sounds in words
- Knowledge of Letter/Sound Association, Letter Sound Knowledge, including upper/lower letter names, and letter printing
- Rapid Automatized Naming (RAN) that can include colors, shapes, numbers and/or letters; *if not completed in pre-kindergarten*

First Grade

Specific components will be administered at the beginning, middle, and/or end of year, or until benchmarks are met. First Grade Components include PK and K components and:

- Automatic and fluent single word recognition, including closed syllable nonsense and real words;

- Dictation letter-writing when given letter sound;
- Normed Oral Reading Fluency

(Hasbrouck & Tindall, 2005; Hasbrouck & Tindall, 2006).

The Screening Process → Step One: Screening Administration

Developmentally appropriate screening instruments and protocols are available for each grade level, and vary depending on expected skills and reading standards for the relevant grade/age range. Screening in each grade ensures students remain "on track" throughout the early years of reading instruction. Many screeners are also diagnostic tools meaning they are brief ***and*** they tell an educator where to begin instruction (where the child is struggling).

The Tools: Commonly Used Screening Instruments

Screeners	Areas Assessed	Grade	Cost	Time
AIMSWeb and AIMSWeb Plus	Letter Naming Fluency, Letter Sound Fluency, Phonemic Segmentation Fluency, Nonsense Word Fluency	K, 1	$6 per student and includes math, reading, spelling	4 minutes
PAR: Predictive Assessment of Reading	Picture Naming Vocabulary, Letter-Word Calling, Phonemic Awareness, Rapid Naming Fluency Accurately measures the current level of reading skills	Pk - 3	1001-2000 students for $5.50/student	15 minutes
DIBELS DIBELS Next Undergoing a regeneration to add the following components: • Encoding (spelling) • Vocabulary • Rapid Automatic Naming	The **Dynamic Indicators of Basic Early Literacy Skills (DIBELS)** are a set of procedures and measures for assessing the acquisition of early literacy skills from kindergarten through sixth grade. • Phonological Awareness Alphabetic Principle • Phonics Alphabetic Principle Accuracy and Fluency Comprehension Vocabulary and Oral Language	K-6	Free Regenerated test will be $2 a student	2-6 minutes
CTOPP-2: Comprehensive Test of Phonological Processing	Includes selected subtests for RAN, working memory, PA	Age 4-24	Most schools already own this assessment	RAN subtest 10 minutes
RAN/RAS: Rapid Automatized Naming and Rapid Alternating Stimulus RAN/RAS research completed at Hopkins by MD research Martha B.	• Rapidly name Letters, Numbers, Colors, Objects • Identifies students who may be at risk for reading failure	K-12	$165 for 50 students (approximately $3 per student)	5 minutes

Denckla				
TPRI: Texas Primary Reading Inventory	Phonological Awareness Phonics Fluency Vocabulary Comprehension Orthography (spelling) Does not measure RAN	K-3		20 minutes
PALS and PALS-PK PALS is the state-provided screening tool for Virginia's Early Intervention Reading Initiative (EIRI). Assessments for students are based on grade level.	Phonological Awareness Alphabet Knowledge Letter-Sound Knowledge Concept of Word Word Recognition in Isolation Word Knowledge Spelling Inventory Oral Reading in Context Alphabetics ▸ Alphabet Recognition ▸ Letter Sounds ▸ Concept of Word Phonemic Awareness ▸ Blending ▸ Sound-to-Letter	Pk-3	$3-5 a student depending on the number of students	At least 25 minutes
Preschool Early Literacy Indicator (PELI) DIBELS, University of Oregon	Measures Phonological Awareness, Phonemic Awareness, Phonics, Fluency, Vocabulary, Orthography	PK	Pricing not yet available, just finished beta testing	5-12 minutes

Step 2: Informal Diagnostic Assessment for Students At Risk

- Identifies areas of reading skill weakness
- Helps pinpoint where to target interventions and how to group students for effective delivery of interventions
- Examples:
    - Pre-Reading Probes (Readsters)
    - Diagnostic Decoding Surveys (Really Great Reading Company)

Step 3: Effective Reading Instruction using a Structured Literacy Approach

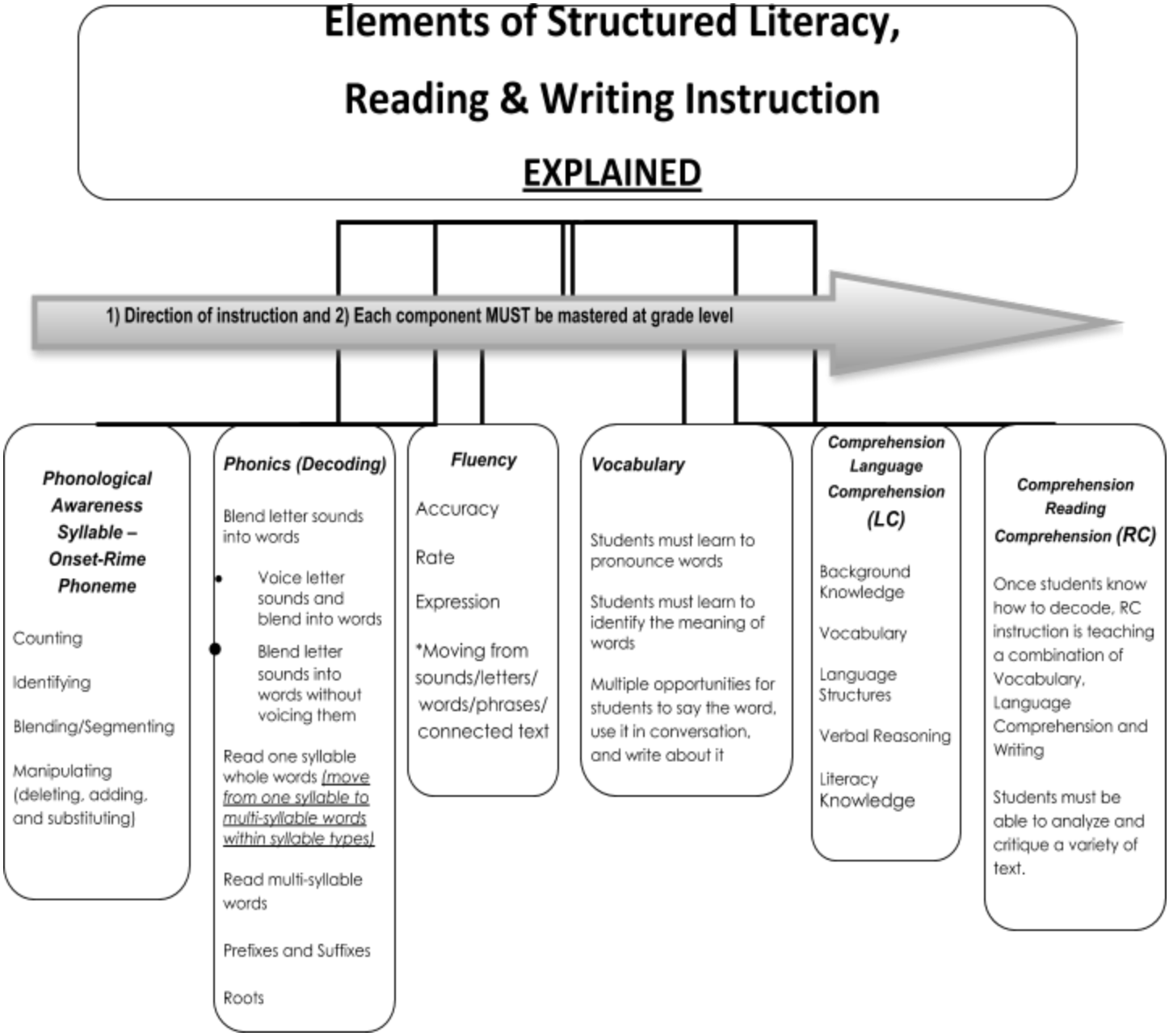
Screening and informal diagnostic data will be used to target structured literacy intervention to each students' area of specific need. Progress will be monitored using specific timelines and procedures to ensure that the intervention is working as designed to prevent a reading gap. For students who do not meet grade level benchmarks within the progress monitoring time frame, the instruction must be altered to further address student needs: this can include duration, intensity, instruction and personnel.

Structured Literacy Instruction is an approach that has been widely found to be most effective for struggling readers because it focuses on the structure of language, and introduces concepts in a explicit, multisensory, systematic and sequential format. The content of Structured Literacy Instruction should consist of the five Essential Components of Reading Instruction (ECORI) as identified by the National Reading Panel under the Reading First legislation (National Reading Panel, 2000) and codified in federal and state law: 20 U.S.C. § 6368(3)(4) (5)(6)

If at any time a disability is suspected, parents and teachers may request formal evaluations to determine if a learning disability is impacting a reading performance.

Number of States with Universal Screening Laws

More than 30 including: CT, NH, NJ, TN, TX; pending in MA



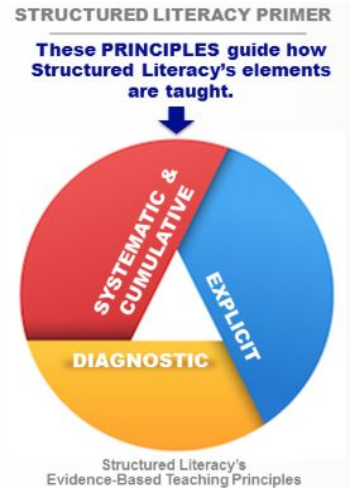
Foundational Writing Skills

- Letter formation (print & cursive)
- Spelling
- Handwriting
- Punctuation
- Capitalization
- Language: grammar and usage (in writing and speaking)

Writing

- Teach sentence frames, sentence combining, sentence elaboration
- Teach organization and knowledge of genre
- Daily writing for all students
- Use the writing process to strengthen student writing
- Use technology, to produce and publish writing to interact and collaborate with others

Source: Graphic modified for K-2 instruction, Source: Teacher in Calvert Co. Public Schools, MD



Step 4: Making Sure the Interventions are Effective; Progress Monitoring

- For students receiving Targeted Intervention
- Frequency: two to eight weeks -- use guidelines as dictated by the screening instrument
- Assesses areas of weakness targeted by the intervention
- Used to monitor whether intervention is working
- Given by anyone trained to give the assessment
- Examples: informal diagnostic assessments for targeted skills, DIBELs, DIBELs Next, AIMSWeb

Alignment

Conforms to Recommendations by The Commission on Innovation and Excellence in Education (Kirwan Commission)
In its preliminary report released on January 9, 2018. page 30, recommendation "H":
"Creating an early warning system as soon as possible based on formative evaluations that enable teachers to identify students who are beginning to fall behind and have teachers work together to get students back on track."

RESOURCES

TASK FORCE SCREENING WORKGROUP:

- Amy Siracusano, Literacy Integration Specialist, Calvert County Public Schools, Task Force member and Lead on the Screening Recommendations Workgroup
- Robin Szymanski, Special Education Teacher, Carroll County Public Schools, MSEA Representative to the Task Force and Screening Recommendations Workgroup

Gaab, Nadine. (2017). It's a Myth That Young Children Cannot Be Screened for Dyslexia. The IDA Examiner. March 2017

Gaab, Nadine, (2018). Screening Pk-2 Website, Best Practices

Final Report of the Task Force to Study the Implementation of a Dyslexia Education Program in Maryland, December 2016

Research to Support Early Reading Screening, Compiled by Decoding Dyslexia Maryland

Table of Reading Screening Instruments, Nadine Gaab, Associate Professor of Pediatrics, Boston Children's Hospital, Harvard Medical School

Universal Screening Resources, Center on Response to Intervention, American Institute for Research (AIR)

4 Essential Components of Quality Reading Instruction, US Department of Education

Support for Early Reading Screening & Interventions

Delegates	Senators	Organizations
A. Washington *Afzali* *Arentz* *Barnes* *Cassilly (maybe)* *Clippinger* *Ebersole (w/ amendments)* *Frick* *Frush* *Glass* *Hill* *Impallaria* *Jacobs* *Kaiser* *Kittleman* *Lam* *Lierman* *Lisanti* *Luedtke* *McComas* *McDonough* *Moon* *Patterson* *Reilly* *Szeliga* *Wilkins* *Wilson*	*Bates* *Brochin* *Conway* *Feldman* *Ferguson* *Kasemeyer* *Nathan-Pulliam* *Norman* *Rosapepe* *Young* *Zucker*	St. Mary's County Special Education Advisory Committee Montgomery County Board of Education Maryland School Psychologists Association (MSPA) with amendments Maryland State Education Association (MSEA) with amendments Maryland Education Association (MEC) Education Advocacy Coalition (EAC) Parent Advocacy Coalition (PAC) Maryland Psychological Association (MPA) Prince George's County Council