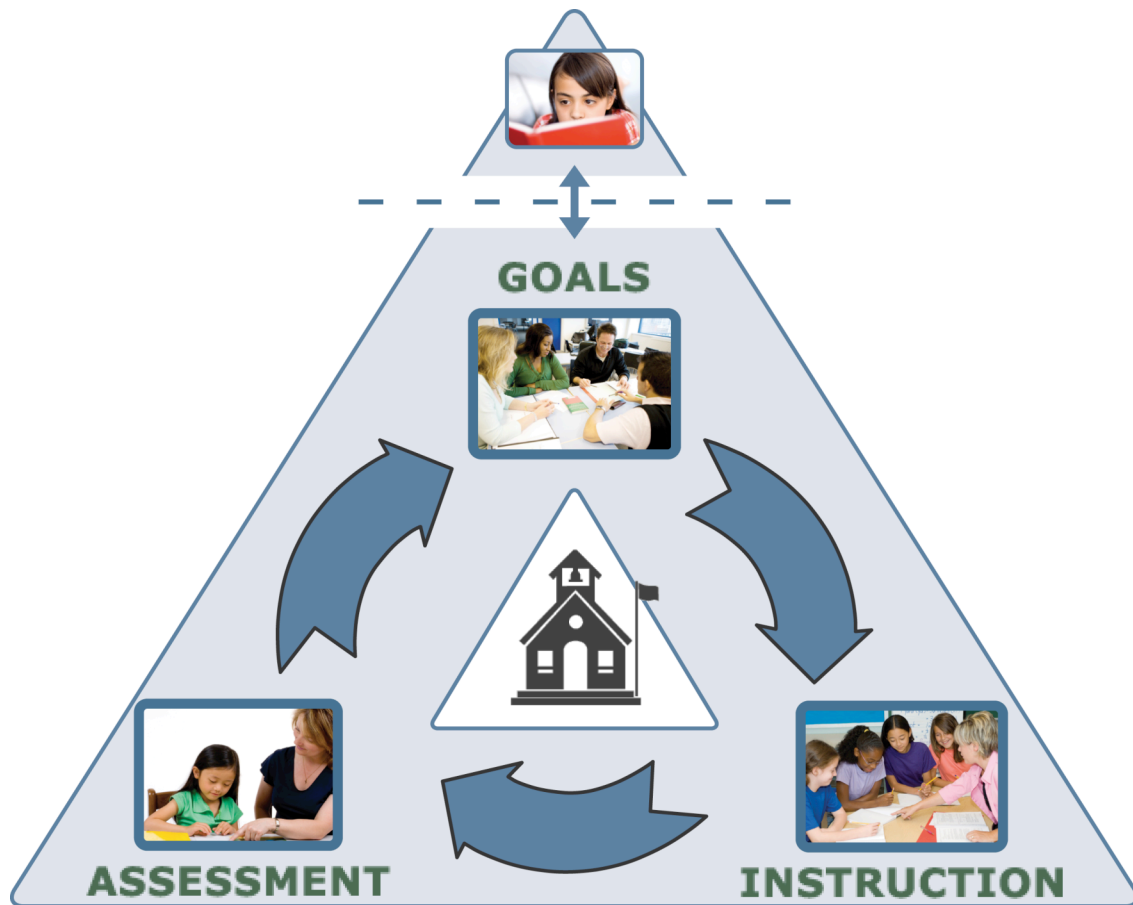


DIBELS

Data System



The Schoolwide Model

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Aug. 15, 2008

- * Schoolwide Model Materials®
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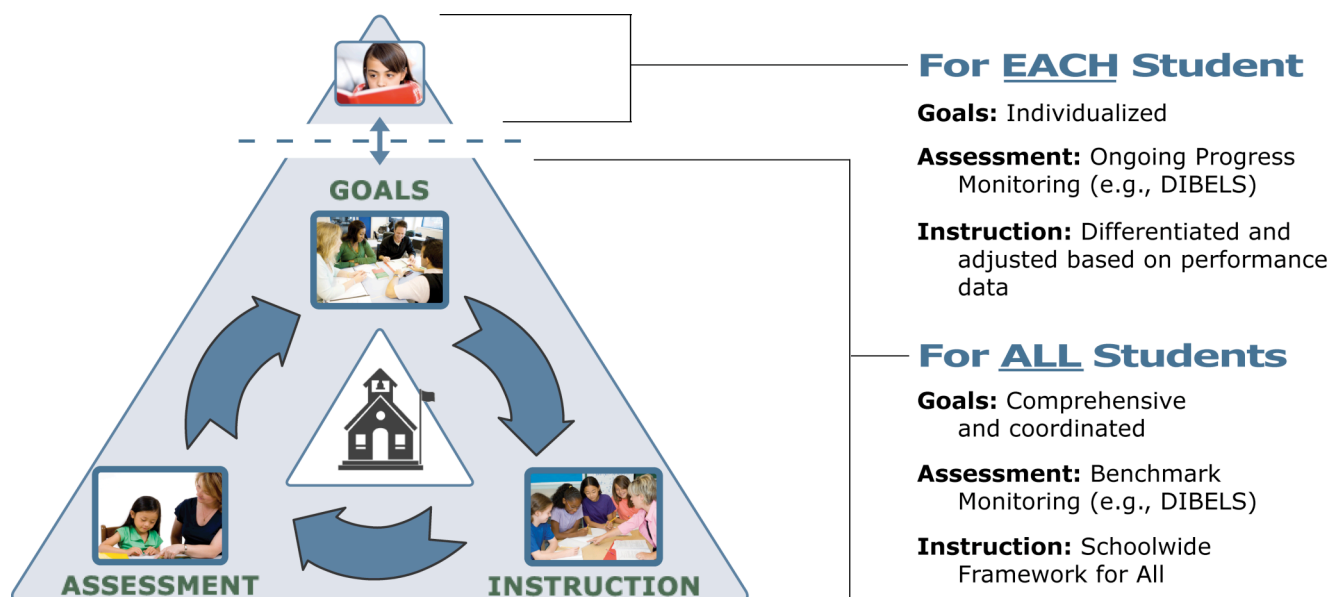
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Introduction

The goal of the Schoolwide Model is to help individual schools build the capacity, communication, and commitment to support the adoption and sustained use of research-validated practices while still acknowledging and honoring their unique and characteristic differences.



This graphic represents the critical components of the Schoolwide Model:

The base of the triangle represents a schoolwide framework or infrastructure that supports comprehensive and coordinated reading goals, assessment and instruction for **all** students.

The top of the triangle represents differentiated and individualized instruction for **each** student through the use of ongoing progress monitoring and instructional adjustments.

Knowledge Base: What We Know

Guiding Question

What do we know and what guidance can we gain from scientifically based reading research?

- ❖ Teaching reading is both essential and urgent.
- ❖ Teaching reading is complex.
- ❖ Teaching reading requires expertise.
- ❖ Teaching reading should be guided by a scientific knowledge base.

HINT: Review the *Schoolwide Model Pretest: What Do You Know About Reading?*

This brief pretest is designed to get you thinking about important ideas in beginning reading and to prime your background knowledge. Answers are provided, and the Schoolwide Model will provide the knowledge and skills to answer these and other important questions in beginning reading. Available at <http://dibels.uoregon.edu/swm/kb1.php>.

Teaching reading is both ESSENTIAL and URGENT.

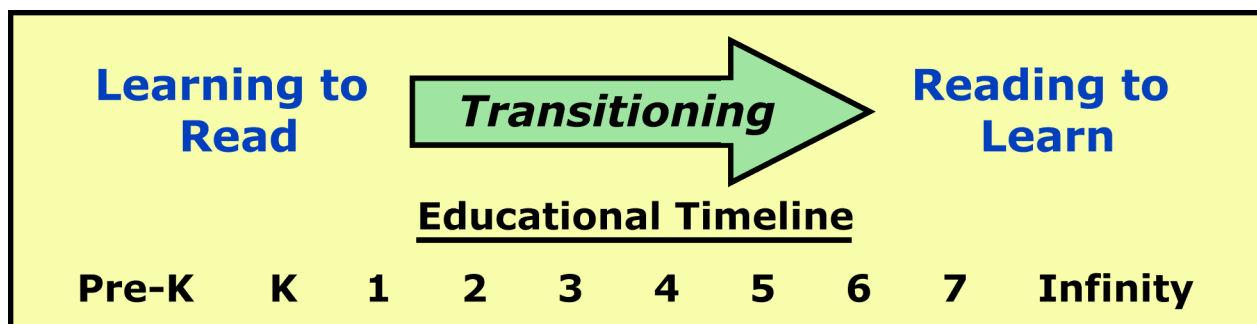
"All students will read at or above grade level by the end of grade 3." We hear this all the time but why third grade and why all?

First, why third grade?

The reason is that before grade 3, children are "learning to read." However, after grade 3, children make the transition to "reading to learn".

- Schools are unforgiving after grade 3, not because teachers or administrators intend to be unforgiving but because the linguistic and cognitive demands placed on children after grade 3 are dramatically different. Kids go from learning to read in kindergarten through third grade to reading to learn in fourth grade.
- Time is fixed and goes only in one direction. Children who are reading at benchmark aren't waiting for the kids who are behind to catch up.
- When learning to read, children read narrative or storybook prose; when reading to learn, they are required to negotiate conspicuously inconsiderate text such as expository or informational text.

Figure 1: Transitioning skills in the Educational Timeline



Second, why focus on all students? Why not some, or even most?

The answer to this can be seen in the reading performance videos from May of first grade that are available on the DIBELS Data system website (<http://dibels.uoregon.edu/swm/kb2.php>).

Video 1 is of a struggling first grader at the end of the year. Watching this student's performance we can make some robust and accurate predictions about this student's later reading development.

- What do you know about this child's reading experiences?
 - It is likely that this student's reading experiences have been limited, frustrating, and unfulfilling.
- What do you know about this child's vocabulary development and enjoyment of literature?
 - It is likely that this student's vocabulary development and enjoyment of literature will be undermined by reading difficulties and lack of meaningful exposure to new words, books, and text.
- What is your prediction about this child's future - in grade 2 and in grade 3?
 - It is likely that this student's school future will be seriously jeopardized by reading difficulties.
- What are the odds of this child becoming a successful reader by the end of grade 3?
 - **Unless** instruction is intensified considerably, the odds are not in this student's favor to be a successful reader by the end of grade 3.
- *Would you feel good about **any** of your students possessing these skills or looking forward to this future?*

★Our goal is always to ruin predictions, and the best way to do that is through high quality instruction.

Video 2 is of a successful first grader at the end of the year. Watching this student's performance we can make some robust and accurate predictions about this student's later reading development.

- What do you know about this child's reading experiences?
 - It is likely that this student's reading experiences have been rich, meaningful, and successful.
- What do you know about this child's vocabulary development and enjoyment of literature?
 - It is likely that this student's vocabulary development and enjoyment of literature will be supported and reinforced by the ability to read fluently.
- What is your prediction about this child's future - in grade 2 and grade 3?
 - It is likely that this student will be successful in school.
- What are the odds of this child becoming a successful reader by the end of grade 3?
 - The odds are in this student's favor.

★Our goal should be to work to provide all students with the skills they need to be successful readers. We want all students to have the odds in their favor.

Teaching reading is ESSENTIAL.

Reading is essential to success in our society (National Research Council, 1998, p.1):

Reading is the doorway to learning. Like no other ability, reading gives children access to the world. You can't gain access to history, politics, news, literature, information, if you can't read. It is virtually impossible to be successful in our society without the ability to read.

Self-trust cannot come without years of deep reading (Bloom, 2001, p. 25):

Not only does reading give us access to the world around us, it also gives us access to ourselves. More importantly, it permits us a confidence that allows us to trust ourselves.

If you can't read, you don't choose; other make choices for you (Kozol, 1991)

Finally, reading is power. It is critical for self improvement, self awareness, and self determination.

Teaching reading is URGENT.

- Schools have 540 days in which to teach children to read.
- Research supports the urgency of teaching reading early.
- Students in the bottom 25% of the reading continuum have a trajectory of progress that diverges early from their peers who have learned to read successfully: *The Matthew Effect*.
- Performance at the end of first grade strongly predicts future reading success or failure.
- Differences in early reading ability can result in immense differences in the amount of independent reading during the elementary years.
- Reading difficulties are persistent.

Schools have 540 days in which to teach children to read.

There is a limited amount of time to teach children to read: **540 days**

540 days is "idealized" time assuming that during reading instruction there are:

- 0 absences
- 0 field trips
- 0 interruptions
- 0 school assemblies
- Attendance every day from grade 1 to end of grade 3 (180 days of instruction per year)

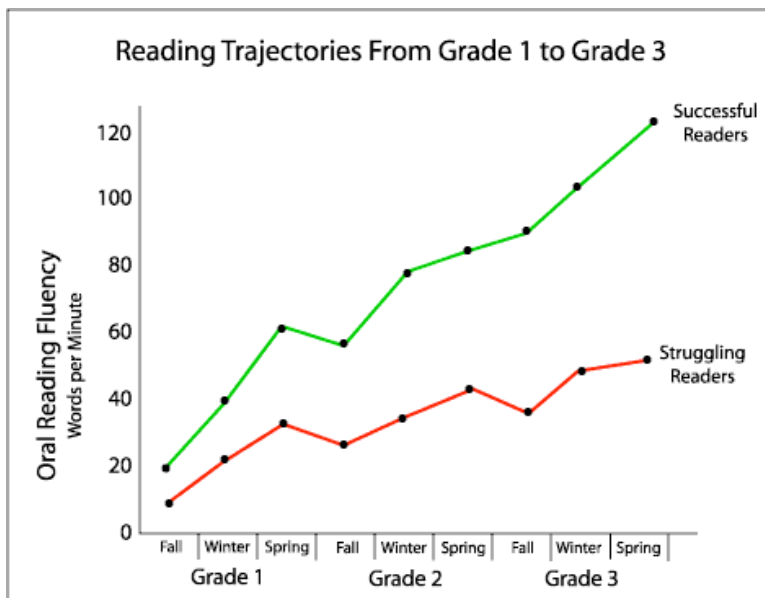
Research supports the urgency of teaching reading early

- As early as kindergarten, “meaningful differences” exist between students’ literacy knowledge and experience (Hart & Risley, 1995).
- In a sample of 54 students, Juel found that there was a 88% probability of being a poor reader in fourth grade if you were a poor reader in first grade (Juel, 1988).
- Approximately 75% of students identified with reading problems in the third grade are still reading disabled in the 9th grade (Shaywitz et al., 1993; Francis et al., 1996, Journal of Educational Psychology, cited in National Reading Panel Progress Report, February 22, 1999).
- "Overall, national longitudinal studies show that more than 17.5 percent of the nation's children--about 10 million children--will encounter reading problems in the crucial first three years of their schooling" (National Reading Panel Progress Report, 2000).

The Matthew Effect

Figure 2 compares the reading progress of a group of successful readers with a group of struggling readers. This graph highlights the urgency of teaching reading early before the gap between successful readers and struggling reading becomes entrenched.

Figure 2: Reading Trajectories from Grade 1 to Grade 3



- At the beginning of first grade there are already significant differences in students who are successful and those who are struggling.
- These reading differences become greater and more discrepant over time (especially at 3rd grade), demonstrating a “Matthew” Effect.

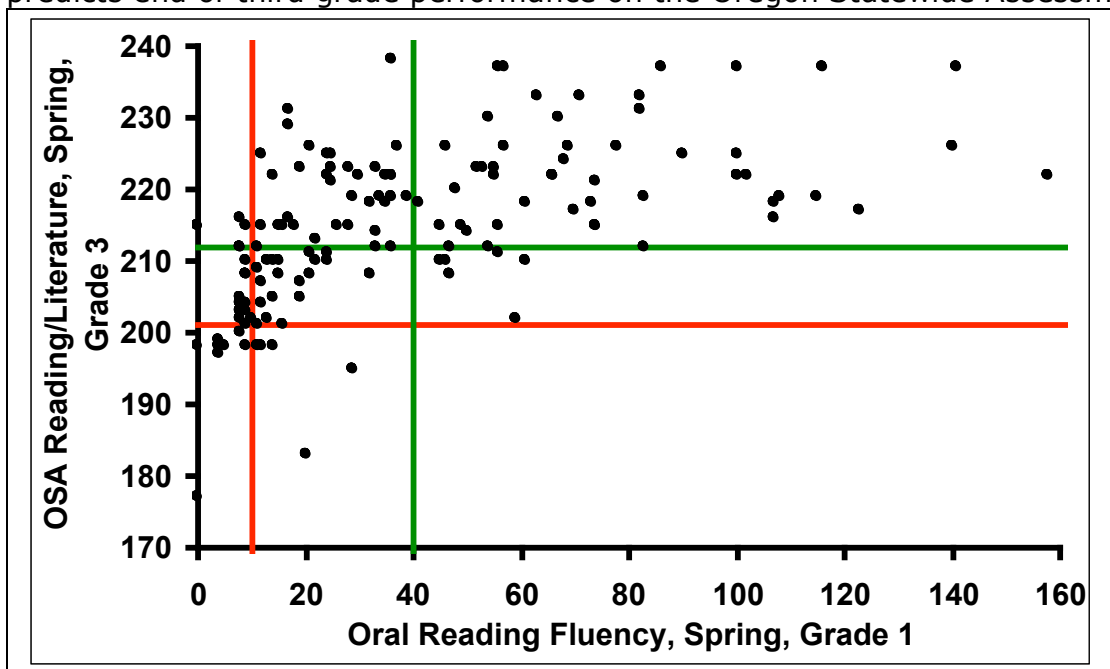
The *Matthew Effect* refers to a self-fulfilling prophecy - the rich get richer; poor get poorer phenomenon (Stanovich, 1986).

- Children who can crack the code, read more words, learn more vocabulary, comprehend more, are motivated to read, and enjoy reading.
- Children without adequate word recognition skills read less, read slowly, have slower development of vocabulary, and are less motivated to read.

Performance at the end of first grade strongly predicts future reading success or failure

Figure 3 shows a scatter plot which compares the end of first grade DIBELS Oral Reading Fluency scores for a group of children from Oregon with their end of third grade scores on the Oregon Statewide Assessment (OSAT).

Figure 3. DIBELS Oral Reading Fluency (ORF) performance at the end of first grade predicts end of third grade performance on the Oregon Statewide Assessment (OSAT)



88% of students who met the end of first grade ORF goal, met or exceeded Oregon's State Benchmark Test

This scatter plot compares the end of first grade DIBELS Oral Reading Fluency scores for a group of children from Oregon with their end of third grade scores on the Oregon Statewide Assessment (OSAT). In this scatter plot, each dot represents a child's reading performance at two different points in time. At one point in time, the dot represents a child's reading performance at the end of first grade, which can be seen on the horizontal axis (numbers begin at 0 and go to 160). That represents a child's Oral Reading Fluency score, which is the number of words read correctly per minute. There

are two vertical lines for Oral Reading Fluency, a red line at 10 correct words per minute, and a green line at 40 correct words per minute. The red line is an indicator. Students who score below 10 correct words per minute at the end of first grade, or to the left of the red line, are in serious trouble. They are at risk for reading difficulties. The green line at 40 correct words per minute represents an acceptable benchmark. Students whose score is to the right of the green line are reading 40 or more correct words per minute at the end of grade 1, which means those students are on track to become successful readers. We want all students' scores to the right of the green line.

Each dot represents a child's reading performance at the end of grade 1, but that same dot also represents that child's reading performance at the end of grade 3 on the Oregon Statewide Assessment (OSAT). That is, each dot represents two points in time, on two different measures. There is a red line at 201, which represents "meeting the standard" on this high stakes achievement test (standards from 2003). The horizontal green line is at 215 represents "exceeding the standard" on the Oregon Statewide Assessment (OSAT). What we must examine is whether or not a child's performance (i.e. a single dot) is to the right of the vertical line (40 correct words per minute) on Oral Reading Fluency and above the green horizontal line (215 or more) on the Oregon Statewide Assessment (OSAT).

If a child met the DIBELS Oral Reading Fluency benchmark of 40 correct words per minute at the end of grade 1, the probability of that child meeting the expectation on the Oregon Statewide Assessment (OSAT) at the end of grade 3 was very high. In fact, 88% of students who met the end of grade 1 Oral Reading Fluency goal, also met or exceeded the standard on the Oregon Statewide Assessment (OSAT).

Differences in early reading ability can result in immense differences in the amount of independent reading during the elementary years.

Table 1 illustrates how differences in early reading ability can result in immense differences in the amount of independent reading during the elementary years. These differences in independent reading have important implications for vocabulary development, comprehension, and learning:

- Children who learn to read early, read more words, learn more vocabulary, comprehend more, are motivated to read, and enjoy reading.
- Children without adequate reading skills, read less, read slowly, have slower development of vocabulary, and are less motivated to read.

Table 1.

Percentile Rank	Minutes Read Per Day		Words Read Per Year	
	Books	Text	Books	Text
98	65	67.3	4,358,000	4,733,000
90	21.2	33.4	1,823,000	2,357,000
80	14.2	24.6	1,146,000	1,697,000
70	9.6	16.9	622,000	1,168,000
60	6.5	13.1	432,000	722,000
50	4.6	9.2	282,000	601,000
40	3.2	6.2	200,000	421,000
30	1.8	4.3	106,000	251,000
20	0.7	2.4	21,000	134,000
10	0.1	1	8,000	51,000
2	0	0	0	8,000

- A student in the 20th percentile reads books **0.71** minutes a day.
- This adds up to **21,000** words read per year.
- A student in the 80th percentile reads books **14.2** minutes a day.
- This adds up to **1,146,000** words read per year.

Anderson, 1992

Reading difficulties are persistent.

Teaching all students to read requires teaching each student to read. This includes the bottom 20% of students, students who will have an extremely difficult time learning to read. These children's difficulties will only increase over time. In other words, they will not "catch up" to their peers without explicit, intensive, systematic, and relentless instruction. This instruction must begin immediately and be sustained over time. Especially for these students, teaching reading is not only essential for success, but also extremely urgent.

- Getting to 100% requires going through the bottom 20%.
- Assuming students will "catch up" with practice as usual is not wise. Catching up is a low probability occurrence.
- The bottom 20% will require a very different kind of effort in both the short and long run.

TEACHING READING IS COMPLEX.

- ★ Teaching reading is a complex problem, therefore there is no simple solution.
- ★ Complex problems often require complex but systematic, reliable, and valid responses as a solution.

"Reading--an extraordinary ability, peculiarly human and yet distinctly unnatural...acquired in childhood, forms an intrinsic part of our existence as human beings, and is taken for granted by most of us" (Shaywitz, 2003; p. 3).

Sally Shaywitz, M.D., Neuroscientist and Professor of Pediatrics, Yale University

- Where to Begin: the Printed or Written Word
- Teaching reading involves working simultaneously in three extremely complex systems.

Where to Begin: the Printed or Written Word

Any discussion about teaching reading should begin with an examination of our reading and writing system. Not all reading and writing systems are the same. English (and Spanish) are both alphabetic systems, which means symbols (i.e., letters or graphemes) represent individual sounds. This is not the case in, for example, a logographic system like Chinese. In this system, individual symbols can represent an entire word.

★ The type of reading and writing system has enormous implications for how to teach reading. So in an alphabetic system, reading instruction must be focused on our alphabet, and how it represents oral language.

- The place to begin an analysis of beginning reading is at the beginning of the reading process: ***The printed or written word.***
- Virtually all modern writing systems are designed to give verbatim (i.e., word for word) representations of spoken language.

Table 2. Writing systems represent words in three major ways:

pictures: <i>logographic</i>	Chinese
syllables: <i>syllabic</i>	Japanese, Korean
phonemes and letters: <i>alphabetic</i>	English, Spanish, Finnish, Italian, Serbo-Croatian, Hungarian

Rayner & Pollatsek (1989)

Teaching reading involves working simultaneously in three extremely complex systems.

Simple Observation: Teaching beginning reading is important.

Harsh Reality: Teaching beginning reading involves three complex systems:

- System 1: The Symbolic System
- System 2: The Organizational System
- System 3: The Expert Knowledge System

System 1: The Symbolic System

The Symbolic System is the complex alphabetic code that humans have invented to capture language in print. Language develops naturally but reading must be taught.

- All humans have a biological predisposition to develop oral language.
- However, our alphabetic reading and writing system is a human invention.
- Many children will not learn this complex system without explicit instruction.

Language comes naturally, but reading in a symbolic system, like the alphabetic writing system, must be taught. Therefore, we have to appreciate how children acquire this symbolic information and how this symbolic information gets mapped in to the neural circuitry of the brain. Paula Tallal and colleagues offer a set of five learning principles about how humans acquire information (Figure 4). First, if reading must be taught, then it requires that learners attend to the features of the task. Reading is a sensory-based task. Readers make visual contact with the print, which allows the visual system to grab the information and transform it in a phonological code. Once that information is transformed in a phonological code, it connects with meaning and how we think about words in our mental dictionary. Second, children's attention must be maintained, and they must be able to perform the task at a high level of accuracy. If they can't perform the task at a high level of accuracy, learning is not achieved. The third scientific learning principle states that the behaviors (i.e., attending to the task and performing the task at a high level of accuracy) must be reinforced. They must be reinforced consistently, and in a rewarding manner to ensure that the child is attending to the symbolic information. In addition, the child must be provided with corrective feedback when he or she makes an error. The fourth learning principle is perhaps the most important and insightful. There must be highly consistent and repetitive input given over an intense period of time, so that consistent patterns of neuronal activation occur. Patterns of neuronal activation that result from consistent and repetitive input build the specific stimulation blueprint that represents the input from the environment in the brain. Finally, once the behavior is established, the complexity and perhaps even the difficulty of the task can be increased. In short, the scientific learning principles permit us to present information in a highly consistent and systematic way, so that we can get the information mapped into the neural circuitry of the brain.

Figure 4. Scientific Learning Principles

1. Must attend closely to features of sensory task.
2. To maintain attention, must be able to perform task at a high level of accuracy (if the task is too difficult, learning cannot be achieved and changes in sensory map do not occur).
3. Behavior must be reinforced in a highly consistent and rewarding manner to maintain motivation and drive learning through corrective feedback.
4. Highly consistent, repetitive input must be given over an intense period of time so that consistent patterns of neuronal activation occur repetitively, building specific stimulation patterns to "represent" the input from the environment in the brain.
5. Once a behavior is established (i.e., the response is accurate and consistent), learning can be driven most effectively by systematically increasing the difficulty of the task as performance improves.

Tallal, Merzenich, Jenkins, & Miller (1999)

Expert reading involves the seamless combination of many components, beginning first with listening comprehension and vocabulary/language development, then progressing to the sounds of words (phonemic awareness) and the ability to associate sounds with letters and use these sounds to form words (alphabetic principle), and culminating in fluency, which is the ability to translate letters-to-sounds-to-words effortlessly and automatically.

Figure 5. Component literacy skills intertwine to become reading

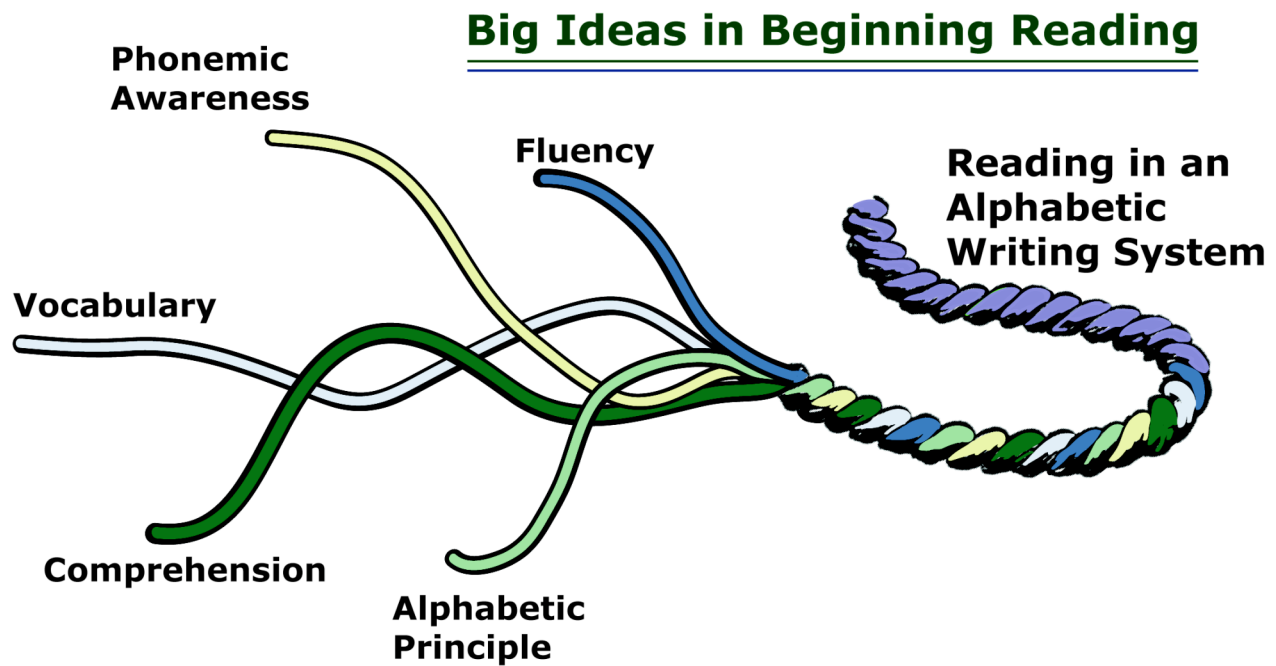


Figure 5 represents the different reading skills, or Big Ideas, as strands that all come together and interact to form a rope that is reading in an alphabetic writing system. While reading in an alphabetic writing system has multiple parts, instruction should ultimately enable children to put these parts together and become successful readers. The strands begin early, prior to the time children begin school. The vocabulary and comprehension strands are first. Those are primarily developed first through listening comprehension and receptive vocabulary. Next is the strand that introduces phonological awareness. In kindergarten and the beginning of first grade, phonological awareness is a critical set of skills that are going to be developed. Next is the strand that represents the alphabetic principle. The alphabetic principle is the awareness and understanding that letters represents sounds and that you can use those letter-sound relationships to build words. The last strand or skill to develop is fluency, the ability to effortlessly, unconsciously, and automatically decode words, which in turn frees up resources for comprehension.

System 2: The Organizational System

The Organizational System is the complex school in which teaching must take place.

- The act of teaching reading occurs within another complex system, a school.
- Too often, teaching reading is considered abstractly, separate from the “real world” classrooms and schools within which it occurs.
- Each individual school consists of a multitude of factors and is influenced by countless forces that all interact in complicated ways and that result in a truly distinctive system.
- We must consider the fit between the unique characteristics of a school and reading instruction.

TEACHING READING REQUIRES EXPERTISE.System 3: The Expert Knowledge System

Teaching reading *is* rocket science (Moats, 1999).

- Teachers need an in-depth knowledge and understanding of our complex alphabetic writing system and effective reading instruction.

Teaching reading is a job for an expert.

- Teachers also need to understand how to translate this knowledge into effective practice within the complexities of classrooms and schools.

The majority of teacher preparation programs underestimate the depth of preparation and practice needed.

- Teachers and administrators need extensive training, professional development, and support to become reading experts.

Quality in Education

"Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction, and skillful execution; it represents the wise choice of many alternatives."

Willa A. Foster

In this quote, Willa Foster captures many critical features and articulates very eloquently what is necessary for children to become readers by the end of grade three. The key features are that quality education is intentional, it is directed by science, in the sense that the choices that we make are informed by the best evidence that we have, and that it requires a very, very high quality of implementation.

Willa Foster notes that quality represents the wise choice of many alternatives. The question is, are those alternative worthy? Are they trust-worthy in terms of the science? Do we have the best science possible supporting those alternatives, so that our students will have the best possible advantage in terms of learning to read? It is absolutely critical that as we think about teaching reading and make decisions about selecting core programs, supplemental programs, intervention programs, teaching strategies, and assessment, that we base those decisions on the best scientific evidence possible.

TEACHING READING SHOULD BE GUIDED BY A SCIENTIFIC KNOWLEDGE BASE.

- Educational decisions should be based on evidence, not ideology (Learning First Alliance, 1998).
- Teaching reading is urgent and complex, but we have a solid scientific knowledge base to guide our efforts.
- This knowledge base has recently been consolidated in a number of extremely important reports and documents.
- This knowledge base provides consensus and a way to move past the divisive reading wars of the past.

Three Major Sources of Scientific Knowledge

1. Beginning To Read: Thinking And Learning About Print (Adams, 1990).
2. Preventing Reading Difficulties In Young Children (National Research Council, 1998).
 - National Academy of Sciences concluded that the weight of research evidence in beginning reading is sizeable enough that there exists sufficient empirical basis for reaching broad consensus within the field.
3. Teaching Children To Read: An Evidence-based Assessment Of The Scientific Research Literature On Reading And It's Implications For Reading Instruction (National Reading Panel, 2000).
 - To conduct an evidence-based assessment of scientific research on reading, 14 member panel of researchers were commissioned by U.S. Congress (1997).
 - The panel developed an objective research review methodology then applied this methodology to evaluate studies - study by study.
 - Approximately 100,000 research studies have been published in reading since 1966.

National Reading Panel (2000): Many Studies, Few Selected

- One of the most interesting things about the Report is that only a small percentage of the research in any area met the Committee's high standards for inclusion in the analysis (Table 3).
- In the final analysis only a small number of studies are included. But the fact that these are all high-quality studies leads to very forceful conclusions. It's not just the number of studies that are conducted although convergence is important. The quality of the studies is also important.
- The quantity of studies done with English Language Learners needs to increase, and the quality of those studies needs to improve.
- However, according to the NRP and other reports (NRC 1998, Adams 1990), we have a significant convergence of evidence.

Table 3. Studies selected for inclusion in the NRP Report

Reading Area	Potential Studies	Included in Analysis	% Making Cut
Phonemic Awareness	1,962	52	3%
Phonics	1,415	38	3%
Fluency	967	128	13%
Vocabulary	247	47	19%
Text Comprehension	453	203	45%

Summary of What We Know From Science and Research

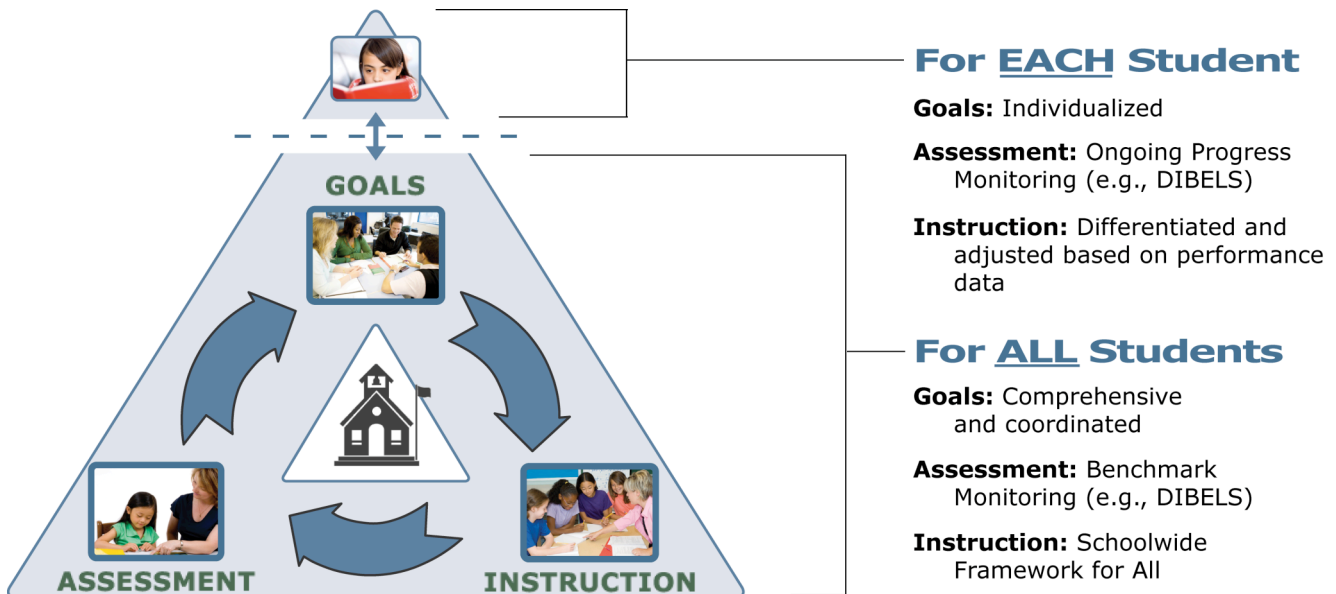
- We know more about reading difficulties than all other learning difficulties put together (Stanovich, 1999).
- We have a solid and converging knowledge base about what works.
- We know that early intervention can prevent or ameliorate the effect of early reading risk for most students (National Reading Panel, 2000).
- We know the skills that enable successful readers. Moreover, we know that these skills can be taught!

2. Why Use a Schoolwide Model?

The Schoolwide Model is designed to take what we know from scientifically based reading research and translate it into effective reading practices.

The overall goal of the Schoolwide Model is to “Build the capacity, communication, and commitment to ensure that all children are readers by grade 3”.

- **Building capacity** means creating the infrastructure and systems schoolwide that can support and sustain effective reading practices for all students.
- **Building communication** means developing a common language surrounding beginning reading and establishing channels of communication schoolwide, among teachers and administrators, and across classrooms and grades.
- **Building commitment** means developing a consensus that beginning reading is the top priority schoolwide and dedicating the resources necessary to meet the goal of ensuring that all children are readers by grade 3.



This graphic represents the critical components of the Schoolwide Model:

The base of the triangle represents a schoolwide framework or infrastructure that supports comprehensive and coordinated reading goals, assessment and instruction for **all** students.

The top of the triangle represents differentiated and individualized instruction for **each** student through the use of ongoing progress monitoring and instructional adjustments.

Seven Reasons to use a Schoolwide Model

- 1: Schools are "host environments" in which people, policies, and practices interact in complex ways.
- 2: If change is to be sustained, it must be at the school-building level.
- 3: The whole of the school is more than the sum of the individual classroom parts.
- 4: A schoolwide commitment to a vision and set of strategic goals offers a coherence that is difficult to gain at the individual classroom level.
- 5: A schoolwide approach to beginning reading standardizes the communication, assessment, interventions, and expectations across grades and classrooms, which helps with mobility between classrooms.
- 6: A schoolwide model establishes *esprit de corps* and a clear identity that are important features of successful organizations.
- 7: Everyone contributes their expertise, wisdom, and experience to a unified effort.

Critical Components of the Schoolwide Model

1) Goals

Goals for reading achievement are clearly defined, anchored to research, prioritized in terms of importance to student learning, commonly understood by users, and consistently employed as instructional guides by all teachers of reading.

2) Assessment

Instruments and procedures for assessing reading achievement are clearly specified, measure essential skills, provide reliable and valid information about student performance, and inform instruction in important, meaningful, and maintainable ways.

3) Instruction

The instructional programs and materials have documented efficacy, are drawn from research-based findings and practices, align with state standards and benchmarks, and support the full range of learners. A sufficient amount of time is allocated for instruction and the time allocated is used effectively. Instruction optimizes learning for all students by tailoring instruction to meet current levels of knowledge and prerequisite skills and organizing instruction to enhance student learning.

4) Professional Development

Adequate and ongoing professional development is determined and available to support reading instruction.

5) Leadership

Strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and establishes mechanisms to communicate reading progress and practices.

6) Commitment

Goals

In the Schoolwide Model, “Goals” refers to a set of strategic, research-based, and measurable goals to guide instruction, assessment, and learning:

- Reading and literacy goals should be aligned with “Big Ideas” in beginning reading
- Curriculum-based or standards-based 180-day pacing maps
- Clear goals and expectations for each grade

Reading and literacy should be goals aligned with “Big Ideas” in beginning reading

- The scientific knowledge base has converged on five “big ideas” in beginning reading (National Reading Panel, 2000). These big ideas highlight what is most important in beginning reading instruction.
- To effectively guide instruction, assessment, and learning, reading goals need to be aligned with these five big ideas.
 - 1: Phonemic Awareness: The ability to hear and manipulate sound in words.
 - 2: Alphabetic Principle: The ability to associate sounds with letters and use these sounds to read words.
 - 3: Accuracy and Fluency with Connected Text: The effortless, automatic ability to read words in isolation (orthographic coding) and connected text.
 - 4: Vocabulary Development: The ability to understand (receptive) and use (expressive) words to acquire and convey meaning.
 - 5: Comprehension: The complex cognitive process involving the intentional interaction between reader and text to extract meaning.

Curriculum-based or standards-based 180-day pacing maps.

- To be most useful, goals should provide specific, user-friendly information about what to teach, when to teach it, and what students should know at every grade level, month by month.
- Goals should provide a detailed map to direct instruction and assessment.

The curriculum map in Figure 7 is shown as an example – the complete set of curriculum maps is available at http://dibels.uoregon.edu/c_maps.php.

Figure 7. Second Grade Curriculum Map for the Alphabetic Principle

Mapping of Instruction to Achieve Instructional Priorities Second Grade

Instructional Priority: Alphabetic Principle	1	2	3	4	5	6	7	8	9
Focus 1: Letter-Sound Knowledge									
* 1a: Produces diphthongs and digraphs	X	X							
Focus 2: Decoding and Word Recognition									
* 2a: Uses advanced phonic elements to recognize words	X	X	X	X					
2b: Reads compound words, contractions, possessives, inflectional endings			X	X	X	X			
* 2c: Reads multisyllabic words					X	X	X		
Focus 3: Sight-Word Reading									
* 3a: Reads more sight words accurately	X	X	X	X	X	X	X	X	X

* High priority skill

Curriculum maps are organized by grade and big idea. This example map is for the teaching the Alphabetic Principle in second grade.

The numbers in the top row of the curriculum map correspond to the months of the school year. For example, if your school year begins in September, then September would be month 1 on the map. If your school year begins in August, then August would be month one. The shaded boxes marked with "X" represent the months in which a particular skill should be taught.

Within the Alphabetic Principle there are multiple objectives children should accomplish. It is important to note that these are time-sensitive maps in the sense that the skills children should master are linked to particular points in time during the academic year. These skills are cumulative and developmental. One of the features that can help teachers prioritize skills are items with an asterisk that are considered more important than others. This doesn't mean that the other skill areas don't need to be taught, but the asterisk items should be given priority.

Clear Goals and Expectations for Each Grade

- To be most useful, goals should be specific, measurable, and linked to critical beginning reading skills at predetermined points in time.
- Benchmark goals that are predictive of later reading achievement allow teachers to determine which students are at risk for experiencing reading difficulties.
- The second grade benchmark goals for DIBELS Oral Reading Fluency are shown as an example of benchmark goals (Table 4). The complete benchmark goals for each grade, assessment period, and DIBELS measures are available at:
<http://dibels.uoregon.edu/benchmark.php>.

Table 4. Second Grade Benchmark Goals for DIBELS Oral Reading Fluency

DIBELS Measure	Beginning of Year Month 1 - 3		Middle of Year Month 4 - 6		End of Year Month 7 - 10	
	Scores	Status	Scores	Status	Scores	Status
Oral Reading Fluency (ORF)	0 - 25 26 - 43 44 and above	At risk Some risk Low risk	0 - 51 52 - 67 68 and above	At risk Some risk Low risk	0 - 69 70 - 89 90 and above	At risk Some risk Low risk

Assessment

In the Schoolwide Model, schools use a valid and reliable schoolwide assessment system to monitor progress in the early grades.

- ❖ *Critical Elements of A Schoolwide Assessment System*
- ❖ *Progress Monitoring*
- ❖ *Using Data to Make Instructional Decisions*

Critical Elements of A Schoolwide Assessment System

- Assessment linked to big ideas
 - Like goals, assessment must be aligned with what is important in beginning reading.
- Schoolwide assessment system established and maintained
 - In the Schoolwide model, DIBELS, or the Dynamic Indicators of Basic Early Literacy Skills, are used as the foundation of a consistent and coordinated schoolwide assessment system.
- Assessment used to monitor progress for all students 3 times per year
 - This enables effective early identification of students experiencing reading difficulties and allows for coordinated prevention and early intervention efforts as well as evaluating class and schoolwide progress.

A Schoolwide Assessment System should meet these criteria to maximize utility:

- Reliable and valid indicators of skills highly associated with early reading success
- Provide “vital signs” of growth and development
- Sensitive to small changes over time
- Simple, quick, cost effective measures that are easily repeatable for continuous progress monitoring

Each DIBELS measure has a two-part goal: How much / How well? & By when? This corresponds to a measurable criterion. For example, for the Oral Reading Fluency measure, a student should score 40 correct words per minute by the end of first grade. The benchmark goals, based on research, predict future reading success. If a student reaches a benchmark goal by the specified time point, we can predict that they will successfully meet the next benchmark goal. Table 5 shows some example benchmark goals for DIBELS measures.

Table 5. Example Benchmark Goals for some DIBELS Measures.

Measure	How Much?	By When?
Initial Sounds Fluency	25 or more	Middle of K
Phoneme Segmentation Fluency	35 or more	End of K
Nonsense Word Fluency	50 or more	Middle of First
Oral Reading Fluency	1st: 40 or more 2nd: 90 or more 3rd: 110 or more	1st: End of Year 2nd: End of Year 3rd: End of Year

Progress Monitoring

Progress monitoring is a key component of providing differentiated and individualized reading instruction.

★ Students experiencing reading difficulties should have their reading progress monitored more frequently than students who are making acceptable progress.

- Performance should be monitored frequently for all students who are at risk of reading difficulty
- Data should be used to make instructional decisions
- Example of a progress monitoring schedule
 - Students at low risk: Monitor progress three times a year
 - Students at some risk: Monitor progress every month
 - Students at high risk: Monitor progress every other week

Using Data to Make Instructional Decisions

Assessment and progress monitoring data provide the answers to the critical questions listed below. Because the answers to these questions have such important implications, they should be based on objective data.

Are we meeting our goals?

- Did we do better this year than last year?
- Is our core curriculum and instruction working for most students?

How do we match instructional resources to educational needs?

- Which children need additional resources to be successful?
- Which children need which skills?

How well is intervention/instruction working?

- Is instruction working for some groups but not others?
- Is intervention effective?

Are we meeting our goals?

Figure 10. End of Year First Grade Histogram for DIBELS Oral Reading Fluency

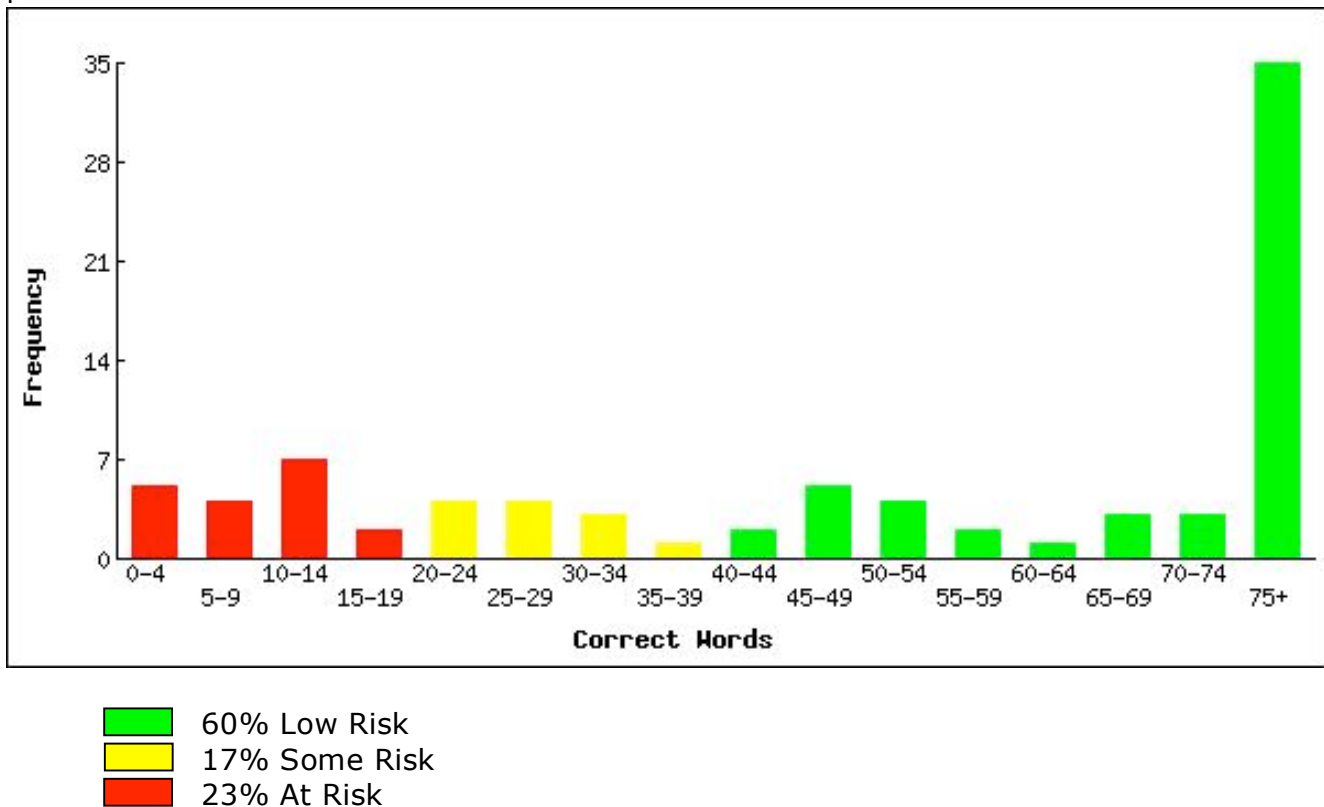


Figure 10 is a type of graph called a histogram. This histogram shows the Oral Reading Fluency performance of students at the end of first grade. The histogram shows the frequency, or number, of students performing at a specific rate level on the vertical axis. The horizontal axis shows the number of words students read correctly per minute. For example, in the left hand corner, you can see that there were 6 students reading at 0 – 4 words per minute at the end of first grade. Colors are used in the histogram to illustrate the *risk status* associated with the performance level. The *risk status* indicates the probability that students will meet the end of third grade benchmark, based on their performance at the end of first grade. Students who end first grade reading at 40 or more words per minute (green bars) are at *low risk* of not meeting the end of third grade benchmark, whereas students reading 10 words or less (red bars) at the end of first grade are at *high risk* of not meeting the end of third grade benchmark without significant intervention.

The school shown in Figure 10 seems to have a group of readers at-risk for reading difficulties and a group of readers that are on-track.

How do we match instructional resources to educational needs?

Figure 11. End of Year First Grade Class List/Teacher Report

Name	Phoneme Segmentation Fluency			Nonsense Word Fluency			Oral Reading Fluency			Instructional Recommendation
	Score	%ile	Status	Score	%ile	Status	Score	%ile	Status	
V, JUSTIN	36	18	Established	6	1	Deficit	6	15	At Risk	Intensive - Needs Substantial Intervention
T, MARK	21	3	Emerging	8	2	Deficit	1	6	At Risk	Intensive - Needs Substantial Intervention
T, FRANK	25	5	Emerging	8	2	Deficit	5	12	At Risk	Intensive - Needs Substantial Intervention
C, PATRICK	72	97	Established	40	29	Emerging	8	19	Some Risk	Strategic - Additional Intervention
A, AMANDA	36	18	Established	41	30	Emerging	14	34	Some Risk	Strategic - Additional Intervention
H, DYLAN	59	77	Established	44	34	Emerging	16	40	Some Risk	Strategic - Additional Intervention
J, DANIEL	49	52	Established	46	38	Emerging	12	29	Some Risk	Strategic - Additional Intervention
B, JESSICA	59	77	Established	52	48	Established	11	26	Some Risk	Strategic - Additional Intervention
B, NICOLE	48	48	Established	53	50	Established	23	51	Low Risk	Benchmark - At Grade Level
H, SHAWNA	61	82	Established	57	57	Established	14	34	Some Risk	Strategic - Additional Intervention
H, CORY	53	64	Established	61	64	Established	37	64	Low Risk	Benchmark - At Grade Level
C, DANIEL	67	92	Established	94	88	Established	61	81	Low Risk	Benchmark - At Grade Level
M, BRANDON	67	92	Established	98	89	Established	67	85	Low Risk	Benchmark - At Grade Level
C, TOMMY	41	31	Established	98	89	Established	72	87	Low Risk	Benchmark - At Grade Level
A, SAMANTHA	36	18	Established	104	91	Established	80	90	Low Risk	Benchmark - At Grade Level
P, JOHN	53	64	Established	131	97	Established	90	93	Low Risk	Benchmark - At Grade Level

Another way to display reading data is a class list. The class list in Figure 11 displays each student's results on the 3 DIBELS measures administered to first graders in the spring of the year (Phoneme Segmentation Fluency, Nonsense Word Fluency, and Oral Reading Fluency). Individual instructional recommendations are based on benchmark goals.

Class list reports can help answer questions like:

- Which children need additional resources to be successful?
- Which children need which skills?
- How are the students in my class doing compared to benchmark goals?

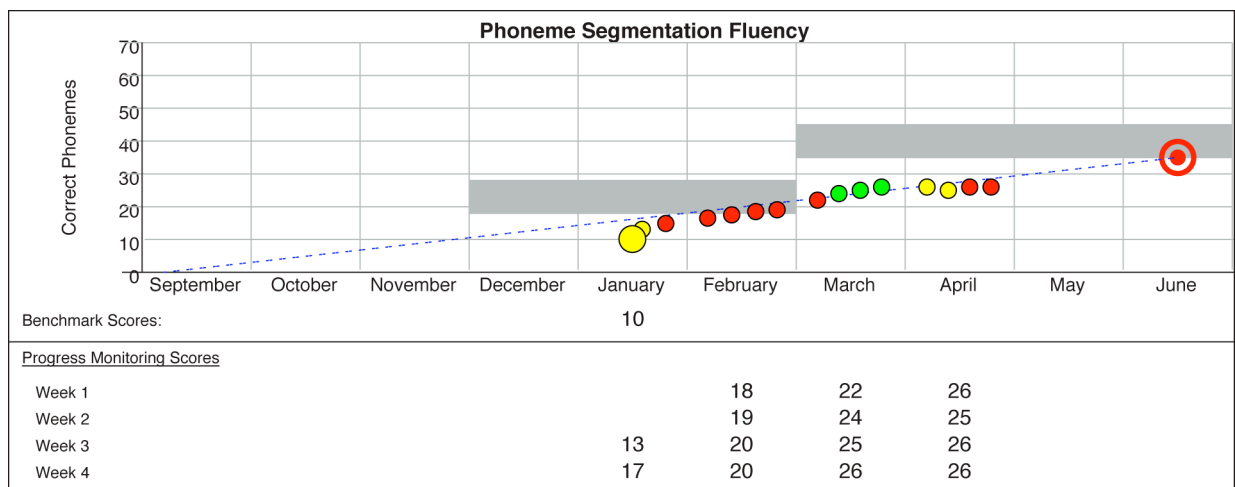
How well is intervention/instruction working?

Another way to display reading data is an individual student's progress monitoring chart (Figure 12). This progress monitoring data displays an individual student's results on the DIBELS Phoneme Segmentation Fluency measure administered multiple times between January and April of kindergarten. The bulls eye is the benchmark goal for this measure.

This progress monitoring data can help answer questions like:

- Is this student making enough progress to reach the benchmark goal?
- Is instruction benefiting this student? Is it effective enough?
- Is intervention effective?
- Should intervention be intensified?

Figure 12. Student Progress Monitoring data for DIBELS Phoneme Segmentation Fluency



Instruction

In the Schoolwide Model, the Instruction component has three critical components:

- Instructional programs
- Instructional time
- Instructional grouping

These three elements can be modified to meet the needs of each student:

- Instructional Adjustments

Instructional Programs

The first part of the Instruction component is “Programs”, specifically, the adoption and implementation of research-based reading programs that support the full range of learners. The critical elements related to Instructional Programs are:

- A core instructional program of validated efficacy adopted and implemented schoolwide
- Supplemental and intervention programs to support core program
- Programs and materials emphasize big ideas
- Programs implemented with high fidelity

A core instructional program of validated efficacy adopted and implemented schoolwide

A core program is the “base” reading program designed to provide instruction on the essential areas of reading for the majority of students schoolwide. In general, the core program should enable 80% or more of students to attain schoolwide reading goals.

★ An effective, scientifically-based core program is essential. Without an effective core program implemented consistently across classrooms and grades, a school’s ability to teach all students to read is seriously diminished.

Supplemental and intervention programs to support core program

Core Program: Programs and materials designed to enable 80% or more of students to attain schoolwide reading goals.

Supplemental Program: Programs and materials designed to support the core program by addressing specific skill areas such as phonemic awareness or reading fluency.

Intervention Program: Programs and materials designed to provide intensive support for students performing below grade level.

★ One size does not fit all. It is important to have a continuum of instructional program that can meet the needs of each student.

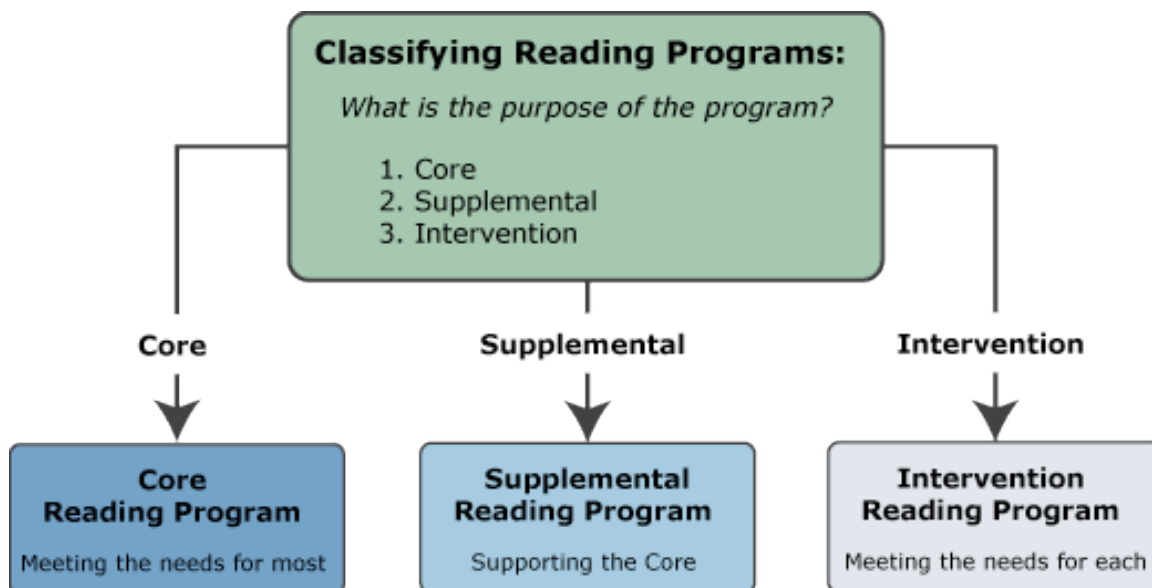
Understanding the Purpose of Different Programs

The core reading program is a school's primary reading program and is designed to meet the needs of most students. Supplemental programs support the core program. Intervention programs are intensive programs designed to meet the needs of "each" or individuals who need additional intensive reading instruction.

★ The core, supplemental, and intervention programs have to work together to support each other and student learning.

Programs are **tools** that are implemented by teachers to ensure that children learn enough on time.

Figure 8. Classifying Reading Programs



Vaughn et al. 2001

Programs implemented with **high fidelity**.

To optimize program effectiveness:

- Implement the program everyday with fidelity
 - (i.e., the way it was written)
- Deliver the instruction clearly, consistently, and explicitly
 - (e.g., model skills and strategies)
- Provide scaffolded support to students
 - (e.g., give extra support to students who need it)
- Provide opportunities for practice with corrective feedback
 - (e.g., maximize engagement and individualize feedback)

Instructional Time

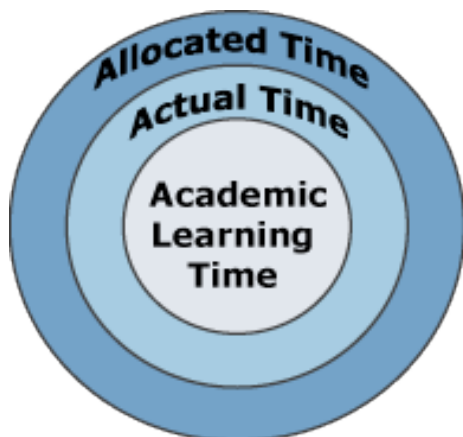
The second part of the Instruction component is “Time”. It is critical that schools ensure adequate, prioritized, and protected time for reading instruction and practice.

- Schoolwide plan established to allocate sufficient reading time and coordinate resources
- Additional time allocated for students not making adequate progress (supplemental & intervention programs)
- Reading time prioritized and protected from interruption

In the Schoolwide Model, instructional time is referred to as “Triple A” (AAA) time.

- **Allocated Time**
- **Actual Time**
- **Academic Learning Time:** *Time children are engaged in tasks in which they can be highly successful*

Figure 9: AAA Time



Triple A time is best conceptualized as three concentric circles. A large, outer circle would represent the total amount of time *allocated* to reading instruction. For example, if your school uses a 90-minute reading block, 90 minutes is the *allocated* time for reading instruction. Next, a school must consider how much of that *allocated* time is *actually* spent in reading instruction and practice. Sometimes the *actual* time does not match the *allocated* time, but our goal should always be to maximize the *actual* amount of time spent in reading instruction and practice. The most important element of instructional time is what is referred to as *academic learning time* (inner circle), which is the amount of time children are engaged in tasks in

which they can be highly successful. These are times in which children are being taught at their instructional level, are being provided many opportunities to respond and practice, and are getting many opportunities to receive corrective feedback. In the best of worlds, *academic learning time* would equal *allocated time*.

Table 6 shows an example of how instructional time could be allocated across second grade classrooms. This example is just one possibility of many effective solutions, but this table illustrates:

- sufficient protected time for reading instruction
- consistent scheduling coordinated across classrooms
- alignment and integration of core, supplemental, and intervention programs
- additional time allocated for students not making adequate progress (supplemental & intervention programs)

Table 6. Sample Time Allocations - Grade 2

Program	Time Allocation
Core Program	90 minutes, five days per week for all students
Supplemental fluency program	15 minutes, three days per week for all students
Intervention phonics program 1	30 minutes, three days per week for students needing some extra support
Intervention phonics program 2	30 minutes, five days per week for students needing intensive support

Instructional Grouping

The third part of the Instruction component is “Grouping”. Effective, thoughtful, and creative use of grouping practices increases the effectiveness of reading instruction. The critical elements related to Instructional Grouping are:

- Differentiated instruction aligned with student needs
- Creative and flexible grouping used to maximize performance

Differentiated instruction aligned with student needs

Examples

- Students are grouped based on assessment results
- Specified supplemental and intervention programs are implemented depending on student needs and profiles

Creative and flexible grouping used to maximize performance

Grouping Options

- Students: Within class, across class, across grade
- Size: Whole class, small group, one-on-one
- Organization: Teacher led, peer tutoring, cooperative learning
- Location: In classroom, outside of classroom
- Groups are constantly reorganized based on progress monitoring data

Instructional Adjustments

A key component of providing differentiated and individualized reading instruction that meets the needs of each student is making ongoing instructional adjustments based on assessment data.

- Instructional programs, grouping, and time are adjusted and intensified according to learner performance and needs, making instruction more responsive to learner performance.

There are many types of instructional adjustments that can be made along a number of dimensions.

Table 7. Alterable Variables Chart

Alterable Components	Specific Adjustments/Enhancements				
<i>Options</i>	1	2	3	4	5
Program Emphasis	Use core program & explicitly teach priority skills.	Use extensions of the core program (e.g., add examples)	Supplement core with reteaching or intervention components of core.	Replace current core program with intervention program.	Implement specially designed program
Time (Opportunities to Learn)	Increase attendance	Provide instruction daily	Increase opportunities to respond	Vary schedule of easy/hard tasks/skills	Add another instructional period (double dose)
Grouping for Instruction	Check group placement & provide combination of whole & small group instruction.	Reduce group size	Increase teacher-led instructions	Provide individual instruction	Change Instructors
Program Implementation	Model lesson delivery	Monitor implementation frequently	Provide coaching and ongoing support	Provide additional staff development	Vary program/lesson schedule
Coordination of Instruction	Clarify instructional priorities	Establish concurrent reading periods	Provide complementary reading instruction across periods	Establish communication across instructors	Meet frequently to examine progress

Professional Development

An Integrated System of Research-Based Professional Development

- Teachers and instructional staff have thorough understanding and working knowledge of grade-level instructional/reading priorities and effective practices.
- Ongoing professional development is established to support teachers and instructional staff in the assessment and instruction of reading priorities.
- Time is systematically allocated for educators to analyze, plan, and refine instruction.
- Professional development efforts are explicitly linked to practices and programs that have been shown to be effective through documented research

Teacher's behaviors can change in response to well delivered professional development opportunities.

Leadership

Strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and establishes mechanisms to communicate reading progress and practices.

- Administrators or the leadership team are knowledgeable of state standards, priority reading skills and strategies, assessment measures and practices, and instructional programs and materials.
- Administrators or the leadership team work with staff to create a coherent plan for reading instruction and implement practices to attain school reading goals.
- Administrators or the leadership team maximize and protect instructional time and organize resources and personnel to support reading instruction, practice, and assessment.
- Grade-level teams are established and supported to analyze reading performance and plan instruction.
- Concurrent instruction (e.g., Title, special education) is coordinated with and complementary to general education reading instruction.
- A communication plan for reporting and sharing student performance with teachers, parents, and school, district, and state administrators is in place.

Commitment

Content for this section still under development.

Content developed by:

Edward J. Kame'enui, Ph. D.
Professor, College of Education
University of Oregon

Deborah C. Simmons, Ph. D.
Professor, Educational Psychology
Texas A & M University

Michael D. Coyne, Ph. D
Assistant Professor, Educational Psychology
University of Connecticut

Beth Harn, Ph. D
Assistant Professor, Special Education
University of Oregon

Acknowledgements:

- Oregon Department of Education
- U.S. Department of Education, Office of Special Education Programs
- Bethel School District, Eugene, Oregon
- Dr. Drew Braun, Dr. Carl Cole, Lori Smith, Rhonda Wolter, Administrators, Staff, and Students
- Dr. Sharon Vaughn, University of Texas at Austin, Texas Center for Reading and Language Arts

All materials are copy written and should not be reproduced or used without expressed permission of Dr. Edward J. Kame'enui or Dr. Deborah C. Simmons. Selected sections were reproduced from other sources and original references cited.

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