THE RESEARCH BASE OF
LEARNING DYNAMICS READING SYSTEM

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INTRODUCTION:

In June 2003, the National Assessment of Educational Progress (NAEP) released the 2002 results for its National Report Card on reading proficiency for fourth, eighth, and twelfth grade students. Based on this report, 36 percent of fourth-graders and 25 percent of eighth-graders performed below the basic level. Therefore, roughly 1 in 3 fourth graders and 1 in 4 eighth graders failed to demonstrate even a partial mastery of reading.

Lack of reading proficiency is a significant concern across the nation. From interpersonal contact with thousands of parents, teachers and educators nationwide, Learning Dynamics Reading has found that while eager to find a solution to the problem, there is a lack of research-based curriculum which successfully guides instruction for beginning readers.

Learning Dynamics Reading, a program based on decades of research and 17 years of field testing, is designed to take beginning readers to an advanced first grade reading level in one school year. Learning Dynamics Reading was developed by teachers using thousands of children and pilot classrooms to achieve fun, results-driven reading instruction. The Learning Dynamics Reading methodology is based on the six implications in teaching a child to read condensed from the National Institute of Child Health and Human Development (NICHD) research findings in the report *A Synthesis of Research on Reading from the National Institute of Child Health and Human Development* (Bonita Grossen PhD., University of Oregon, 1997).

According to the synthesis of NICHD research, appropriate early direct instruction appears to be the best medicine for reading problems, evidenced by the fact that children who fall behind at an early age (kindergarten and first grade) fall further and further behind over time (Fletcher, et al, 1994). The six major implications the NICHD research suggest represent conclusions from multiple studies comparing the effects of different treatments on various population samples. The findings indicate that teachers need to follow these steps to prevent reading problems in students.

SIX MAJOR IMPLICATIONS FROM THE NICHD RESEARCH SYNTHESIS

1. Begin teaching phonemic awareness directly at an early age.
2. Teach each letter-sound correspondence explicitly.
3. Teach frequent, highly regular letter-sound relationships systematically.
4. Show children exactly how to sound out words.
5. Use connected, decodable text for children to practice the letter-sound relationships they learn.
6. Read interesting stores to children to develop language comprehension.

The more recent *Report of the National Reading Panel: Teaching Children to Read* (2000) substantiates the research implications in Grossen's report. Correlational studies identified phonemic awareness and letter knowledge as the two best school entry predictors of how well children will learn to read during the first two years of instruction. The results of experimental studies led the Panel to conclude that teaching phonemic awareness caused students to improve in both reading and spelling. The findings were replicated across multiple experiments and thus provide converging evidence for causal claims. Better reading performance will result from instruction designed around these implications, especially the first four implications.

"…Phonemic awareness … is clearly effective. It improves their ability to manipulate phonemes in speech. This skill transfers and helps them learn to read and spell. Phonemic awareness (PA) training benefits not only word reading but also reading comprehension. PA training contributes to children's ability to read and spell for months, if not years, after the training has ended" (National Reading Panel, 2000, ch. 2, 40).

This research base will illustrate how Learning Dynamics Reading incorporates each of these steps into its methodology. The fidelity with which Learning Dynamics Reading incorporates these implications from the research distinguishes this program from many other beginning reading programs on the market.

Technical notes:
Chapter 1
Teach phoneme awareness directly.
Lack of phoneme awareness seems to be a major obstacle for learning to read (Vellutino & Scanlon, 1987a; Wagner & Torgesen, 1987). About 1 in 5 children do not develop phoneme awareness. For these children, phoneme awareness does not develop or improve over time; they never catch up but fall further and further behind in reading and in all academic subjects (Fletcher, et al., 1994; Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992; Stanovich, 1986; Stanovich & Siegel, 1994).
Recent research on phoneme awareness has found the following types of tasks to have a positive effect on reading acquisition and spelling: rhyming, auditorily discriminating sounds that are different, blending spoken sounds into words, word-to-word matching, isolating sounds in words, counting phonemes, segmenting spoken words into sounds, deleting sounds from words (Ball & Blachman, 1991; Borne & Fielding-Barnsley, 1990; Cunningham, 1990; Foorman, Francis, Beeler, Winikates, & Fletcher, 1997; Lie, 1991; Lundberg, Frost, & Peteresen, 1988; O'Connor, Jenkins & Slocum, 1995; Smith, Simmons, & Kameenui, 1995; Vellutino & Scanlon, 1987b; Yopp, 1988).
Explicit instruction in how segmentation and blending are involved in the reading process was superior to instruction that did not explicitly teach the children to apply phoneme awareness to reading (Cunningham; 1990). Kindergarten children with explicit instruction in phoneme awareness did better than a group of first graders who had no instruction, indicating that this crucial preskill for reading can be taught at least by age 5 and is not developmental (Cunningham, 1990).
In a study by Ball and Blachman (1991), 7 weeks of explicit instruction in phoneme awareness combined with explicit instruction in letter-sound correspondences for kindergarten children was more powerful than instruction in letter-sound correspondences alone and more powerful than language activities in improving reading skills.

1. BEGIN TEACHING PHONEMIC AWARENESS DIRECTLY AT AN EARLY AGE

Phonemic awareness (PA) is the ability to break down words into individual sounds or phonemes. PA is prerequisite to learning phonics and therefore does not yet involve the child in reading. Though the importance of PA has only recently received attention in research, Learning Dynamics Reading has included instruction in PA since its development in the 1980's.

Learning Dynamics Reading lessons are administered in 15 minute sessions focused on a single concept (i.e., a single phoneme, letter-sound relationship). The materials are elemental in nature, incorporating colorful cartoon characters, nursery rhyme-like stories, large traceable letters and playful songs that appeal to ages 3 to 7 (preschool to second grade). Because the attention span of this age group is minimal and oftentimes motivated through play, Learning Dynamics Reading methodology is effective in holding the attention of beginning readers and makes reading instruction feel similar to play time. Learning Dynamics materials focus on just one phoneme per lesson that is introduced directly through verbal and audible repetition, sing-along songs, games, cartoon characters, and coloring worksheets.

Using colorful cartoon characters, nursery-rhyme-like stories, large traceable letters and playful songs Learning Dynamics Reading is specifically geared to children ages 3-7.

Learning Dynamics Reading incorporates several PA activities that hold the attention of this age group. For example, Learning Dynamics' first lesson focuses entirely on the letter "m". During this lesson, students listen and sing along to the "m" song, color objects on a worksheet that begin with the letter "m", practice tracing the letter "m" and printing it on their own, and are introduced to a character called Morty Mouse through a short story using "m" alliteration and a unique game piece with the Morty Mouse character printed on it.

PA is specifically taught in a story about Morty Mouse, which reinforces the individual /m/ phoneme. Teachers read the story aloud to their students and emphasize the /m/ sound.

Use the mouse to tell the story.
Emphasize the letter sound:

Morty Muching Mouse loves to munch. Munch, munch, munch. (mmmm-rub tummy)
Morty Munching Mouse munches macaroni. Munch, munch, munch. (mmmm-rub tummy)
Morty Munching Mouse munches muffins. Munch, munch, munch. (mmmm-rub tummy)
Morty Munching Mouse munches mushrooms. Munch, munch, munch. (mmmm-rub tummy)
But most of all, Morty Munching Mouse loves to munch on M&M's®
-mmmmmmmmmm. (Rub tummy)
Munch, munch, munch. He just might munch on you!
(Pretend to do munching motions with your hand toward the child).

Phonemic awareness is reinforced using a short story with alliteration and a unique character game piece to help children remember the specific phoneme taught in class.

Technical notes:

In a study by Foorman et al. (1997), 260 children were randomly assigned to a revised kindergarten curriculum (n=80) and a standard curriculum (n=160) consisting of developmentally appropriate practices described by the state of Texas' essential elements for kindergarten. The revised curriculum sought to prevent reading disabilities by teaching phoneme awareness for 15 minutes a day using the Lundberg, Frost, and Petersen (1988) curriculum from Sweden and Denmark. Children in the revised curriculum made significant gains in phoneme awareness over the year.

Foorman et al. (1997), found that the greatest gains occurred when the explicit instruction moved into teaching the letter-sound relationships concurrently with the instruction in phoneme awareness. Phoneme awareness alone is not sufficient for many children. Explicit instruction in common letter-sound correspondences is also necessary (Adams, 1990; Ball & Blachman, 1991; Borne & Fielding-Barnsley, 1990; Foorman et al., 1997; Man, 1993; Rack, Snowling, & Olson, 1992; Snowling, 1991; Spector, 1995; Stanovich, 1986; Torgesen et al., 1997, Vellutino, 1991; Vellutino & Scanlon, 1987a).

Research shows that a lack in PA is a major obstacle in reading proficiency (Fletcher et al., 1994). This research is very successful with kindergartners, as long as it is age appropriate. Age appropriate does not mean delaying intervention until later years. Rather, age appropriate means finding materials which are developmentally appropriate and will interest the given age group (Flecher, et al., 1994).

In another study by Share et al. (1984), kindergartners were tested on factors that may contribute to reading readiness including phonemic segmentation, letter name knowledge, memory for sentences, vocabulary, father's occupational status, parental reports of reading to children, TV watching and more. Results showed that phonemic awareness was the top predictor of reading readiness along with letter knowledge (NRP, 2000).

Chapter 2

Each letter-sound correspondence should be taught explicitly.

Phoneme awareness alone is not sufficient for many children. Explicit instruction in common letter-sound correspondences is also necessary (Adams, 1990; Ball & Blachman, 1991; Borne & Fielding-Barnsley, 1990; Foorman et al., 1997; Mann, 1993; Rack, Snowling, & Olson, 1992; Snowling, 1991; Spector, 1995; Stanovich, 1986; Torgesen et al., 1997; Vellutino, 1991; Vellutino & Scanlon, 1987a).

After children hear the story, they complete lesson worksheets that teach PA requiring them to identify words with the same initial phoneme, isolate sound/ phonemes, and recognize alliteration (e.g., Morty Munching Mouse). These worksheets can be colored with crayons and either hung in the classroom or kept with the student as a reminder of the learned phoneme.
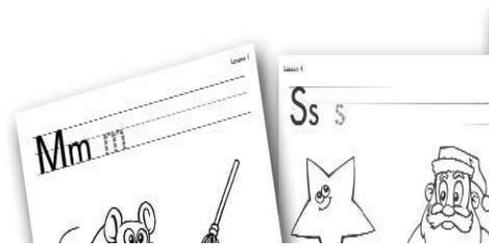
After single phonemes are taught, children complete lesson worksheets to emphasize learned concepts which include phoneme isolation, alliteration, and identifying words with the same initial phoneme.

Learning Dynamics Reading materials are specifically designed to engage young children between the ages of 3-7. The playful materials engage students in lessons which teach PA at a young age, supporting research which states that PA is a crucial preskill for reading that can be taught at least by age 5 and is not developmental.

2. TEACH EACH LETTER-SOUND CORRESPONDENCE EXPLICITLY

Most basal reading programs of the 1980's as well as the linguistic basals of the 1970's, did not present letter-sound correspondences explicitly. Instead they recommended that letter-sound correspondences be presented implicitly. The following instructions from such an implicit phonic approach direct the teacher to introduce the sound for s :

(Write the words sun and soap on the chalkboard. Point to each word, say it, and have the children repeat it.) "The words sun and soap begin with the same letter". (Point to the s in sun.) "What letter does the word sun begin with?" (Students say the letter name, s.) "The letter s also stands for the beginning sound in the word soap." (Point to the s in both words.) "The letter s stands for the beginning sound in the words sun and soap." (Early Cooper, Santeusanio, 1983, p. 70).

As is typical of the implicit approach, the sound /s/ for the letter "s" is never explicitly stated by the teacher, nor does the letter "s" appear in isolation. In contrast, the example below shows instructions that present the letter-sound correspondence for "s" in Learning Dynamics Reading. The letter-sound correspondence is explicitly presented in isolation, teaching individual sound-symbol relationships.

(Hold up the large flashcard with the letter s and point to s.) "This is the letter s. It says ssss. What letter is this? (Students say s.) What does it say? (Students say sss.) Good!"
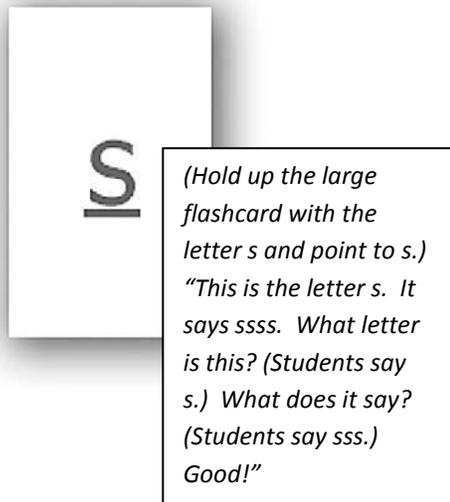
Letter-sound correspondences are taught explicitly in Learning Dynamics Reading by a teacher showing students a flashcard and saying the letter name and sound together as a class.

Technical notes:

Foorman et al. (1997), found that explicit instruction in letter-sound relationships was more effective than whole language instruction in reducing reading disabilities even with children who had benefited from phoneme awareness instruction in kindergarten. Foorman, Francis, Novy, & Liberman (1991) found that more intensive instruction in letter-sound relationships during reading (45 minutes per day) was more effective than less instruction in letter-sound relationships (letter-sound instruction occurring only during spelling and not during reading). Instruction in specific letter-sound relationships was more effective than a strategy for using analogous word parts on transfer to new words and on standardized reading measures (Lovett, Borden, DeLuca, Lacerenza, Benson, & Brackstone, 1994). Torgesen et al. (1997) also found that explicitly teaching the letter-sound relationships was superior to teaching explicitly at the onset-rime level and superior to an implicit approach.

"An enormous amount of research effort has gone into evaluating whether instruction in specific letter-sound correspondences was important for reading acquisition. The two famous reading research reviews…supported an explicit phonics approach."

These recent findings are consistent with other research over the years. An enormous amount of research effort has gone into evaluating whether instruction in specific letter-sound correspondences was important for reading acquisition. The two famous reading research reviews by the Commission on Reading (Anderson, Hiebert, Scott, & Wilkinson, 1985) and Adams (1990) both concluded that the research supported an explicit phonics approach.

Similar conclusions were drawn from a meta-analysis conducted by Pflaum, Walberg, Karagianes, and Rasher (1980), and in a longitudinal study on reading comprehension acquisition (Meyer, Hastings, Wardrop, & Linn, 1988). Two types of findings generally emerge from the specific studies with normally achieving students. The majority of studies find that explicit phonics achieves better results than implicit phonics (Carnine, 1977; Gettinger, 1986; Grant, 1973; Haddock, 1976, 1978; Hayes & Wuerst, 1967, 1969; Jeffrey & Samuels, 1976; Jenkins, Bausell, & Jenkins, 1972; Lynn, 1973; Yawkey, 1973).

"The majority of studies find that explicit phonics achieves better results than implicit phonics."

Another group of studies find no differences (Fox & Routh, 1976; Muller, 1973). Putnam & Youtz (1972) initially found results favoring an implicit approach, but by second grade the explicit phonics group significantly out performed the implicit phonics group on a measure of reading comprehension.

Several studies found explicit phonics more effective for low-performing, at-risk or special education students of varying ages (Biggins & Uhler, 1979; Enfield, 1976; Richardson, Winsberg, & Binler, 1973; Williams, 1980).

Taken together these findings indicate that although explicit instruction in letter-sound correspondences does not seem necessary for every group of children, it is for others. On the other hand, implicit phonics instruction offers no known advantage over explicit phonics. Because explicit phonics instruction never seems to hurt and often seems to help, one can conclude that a reading program that teaches letter-sound correspondences explicitly, such as Learning Dynamics Reading, will better meet the needs of

Only **after** the letter-sound relationship has been taught explicitly in Learning Dynamics Reading will the teacher reinforce the learning through activities mentioned in the previous section including songs, stories, and worksheets.

The explicit letter-sound relationship is also specifically presented in the alphabet songs provided in the Learning Dynamics Reading music CD. The simple, repetitive lyrics recited in the context of seeing the single letter reinforces a child's recall of the sound that goes with that letter. Students listen to the letter-specific song twice during each lesson. They sing the "m" lyrics while the teacher points to the letter in isolation or in words or objects that begin with that letter provided in the Lesson Manual.

Students listen to a letter-specific song twice during each lesson. As students sing the lyrics, the teacher points to the letter in isolation or in words or objects that begin with that letter provided in the Teacher's Manual.

There is also an area on the lesson worksheet for children to trace the specific letter and then practice printing the letter on their own.
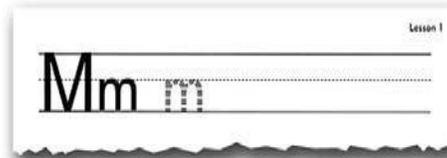
Students practice tracing letters and printing on their own in the Student Workbooks.

Once the worksheets and phonemic awareness activities have been completed by the students, the teacher checks student mastery of the individual letter-sound relationship again for a final review. Upon successful completion of each lesson, the child is given the game piece corresponding to the letter-sound relationship learned as a reminder and reward.

"What letter is this? What does it say? Can you tell me a word that starts with the sound of "mmmm"? Good! Now you may keep Morty Mouse. He will help you remember what "m" says.

Upon successful completion of each lesson, children are given the character game piece corresponding to the letter-sound relationship learned as a reminder and a reward.

Note: There are several optional activities teachers can do in their classrooms throughout the week to reinforce letters and sounds for cumulative review. Most of these activities are physical or kinesthetic, (hide and go seek games, memory games, arts and crafts) requiring little prep time. These games can be played with the children on the days where no formal lessons or letter instruction is given so that phonemic awareness concepts are reinforced throughout the week.

Research supports Learning Dynamics Reading methods with findings showing that new letter-sound relationships should be briefly practiced each day in isolation and also (later) in the context of words.

The rest of the session involves practice reading the new letter in the context of words and stories that are composed of only letter-phoneme relationships the children know at that point (see technical notes).

Technical notes:

"…One can conclude that a reading program that teachers letter-sound correspondences explicitly, such as Learning Dynamics Reading, will better meet the needs of all students, not just some students."

"Several studies found explicit phonics more effective for low-performing, at-risk or special education students of varying ages."

Technical notes:

Chapter 3

Select high-frequency letter-sound relationships and sequence them carefully.

Burmeister (1975) synthesized a number of studies evaluating the utility of the 100 to 200 phonic generalizations that were taught in traditional basals. Most of the traditional phonics rules did not generalize well enough to justify teaching them; there were more expectations to the rule than instances of the rule. Others were rarely used in words the children read in children's literature (e.g., sc sounds like /s/ as in scene). She identified a smaller set of approximately 45 letter-sound correspondences that had a utility rate high enough to justify instruction. By learning only one sound for each unique letter or pair of letters (e.g., ai), children could decode 95% of the sounds in the preceding five sentences and would reach close approximations for 98% of the sounds (e.g, f in of sounds like v, not f).

The rules used to sequence the introduction of letter-sound correspondences have been evaluated in comparative research by Carnine (1980c).

Learning Dynamics Reading teaches explicit letter-sound correspondence. By teaching letter-sound relationships individually and then putting them into the context of other letters they've learned up to that point (explained in following Sections), children who use Learning Dynamics Reading are able to experience early success and have increased motivation to continue learning reading skills. For a full lesson plan outline see Appendix A.

3. TEACH FREQUENT, HIGHLY REGULAR LETTER-SOUND RELATIONSHIPS SYSTEMATICALLY

"Teach systematically" means coordinating the introduction of letter-sound relationships with the material children are asked to read. Learning Dynamics Reading is built around a specific letter order that does not follow alphabetical order. Rather, phonemes are taught beginning with commonly used letters and sounds that will allow children to read words quickly as stated above.

According to the NICHD research synthesis, "the order of the introduction of letter-sound relationships should be planned to allow reading material composed of meaningful words and stories as soon as possible. For example, if the first three letter-sound relationships the children learn are a, b, and c, the only real word the children could read would be 'cab'. However, if the first three letter-sound relationships were m, a, and s, the children could read am, Sam (and) mass."

Learning Dynamics Reading begins with these same letters to ensure children will feel the success of reading early. The letters m, a, p, s, and t are introduced first to give children the ability to make the most words quickly.

The following chart represents the letter order taught in Learning Dynamics Reading:

	LETTER ORDER
1	m, a, p, s, t
2	b, h, g, d, n
3	r, l, c, j, f
4	o, x, i, z, w
5	k, v, u, e, q
6	y, long a, long e,
7	long i, long o, long u
8	two-vowel rule

Learning Dynamics Reading teaches letters in a unique non-alphabetical order beginning with commonly used letters and sounds that minimizes memorization and allows children to read words quickly.

Learning Dynamics Reading teaches highly regular letter-sound relationships systematically through materials that are developed specifically to provide practice in only the letter-sound relationships that have been taught up to that point.

For example, after learning the first five letters (m, a, p, s, t), the child is introduced to the following words: at, sat, mat, pat, tap, map, Pam, Sam. After just three additional lessons where children learn b, h, and g, they are introduced to the words bat, bam, tab, hat, ham, gas, gab, sag, tag, and bag in addition to the words they've already learned. This pattern is repeated throughout the rest of the program as new letters are introduced.

Technical notes:

Letters Learned:	Words Introduced:
"m, a, p, s, t"	at, sat, mat, pat, tap, map, Pam, Sam
Letter "b"	bat, bam, tab, pat, Sam, Pam
Letter h"	hat, ham, bat, sat
Letter "g"	gas, gab, sag, tag, bag

After learning the first five letters, children are introduced to their first words which incorporate these letters. As additional letters are learned, new words corresponding with these letters are introduced.

Learning Dynamics Reading ensures children are only introduced to words which include the letter-sound relationships they have learned to help young readers feel excitement and confidence in reading.

Technical notes:

Chapter 4

Pupils should be taught how to blend sounds together into words.

Coleman (1970) noted that blending is a strategy that students can apply to many different words, but direct instruction in the blending strategy using many sounds is necessary before students will acquire the generalized skill. Skailand (1971) and Silberman (1964) reported that if subjects are taught sound-symbol relationships but not blending, they will not use sounding out as a decoding strategy.

"direct instruction in the blending strategy using many sounds is often necessary before students will acquire the generalized skill."

4. SHOW CHILDREN *EXACTLY* HOW TO SOUND OUT WORDS

Going from letter-sound relationships to actually sounding out words can be difficult for some students and will just "click" for others. According to research, direct instruction in blending (sounding out words) is necessary before students will acquire the generalized skill (Coleman, 1970). After children have learned five letter-sound correspondences, Learning Dynamics Reading begins teaching students how to "blend" the sounds into words. Children are shown how to move sequentially from left to right through spellings as they "sound out" or say the sound for each spelling. Children are only required to practice blending using words composed of the letter-sound relationships they have learned.

Learning Dynamics Reading shows teachers exactly how to explain blending to their students. After students have learned the first five letters of the program (m, a, p, s, t), teachers will focus on only two phonemes to introduce blending: m and a. Students are instructed that they have a motor in their mouth. When they turn the motor on, they make the sound of a specific letter. The blending lesson is introduced in lesson 7 -- after children have learned and reviewed the first five phonemes. See the blending instruction below.

Blending Instructions

"Did you know these sounds can be put together to make a word? When you know words, you can READ! I have a little motor in my mouth. When I turn it on, it will say a sound-mmmm. If I leave my motor running, it will make the sound last longer "mmmmmmmmmm." Then I can put it with other sounds. Listen:

What does this letter say? "aaaa (blue letter card)
What does this letter say? "mmm (blue letter card)

Now listen while I make my mouth motor stay on "aaaaammm"
Let's do it again! "aaaaamn
Now faster! "aaamm"
Listen for the word! "am"
Great! Good job!

Let's do another word!
What does this letter say? "mmmm"
What does this letter say? "aaaa"
What does this letter say? "tttt"
Now listen while I make my mouth motor stay on. "mmmmaaaatttt." Let's do it again, faster and faster with our motors!

Learning Dynamics Reading teaches students exactly how to sound out words by using the letter-sound relationships they have learned up to that point. Students are instructed to use the "motor" in their mouth which will help them blend the sounds together to form words.

Technical notes:

Bishop (1964), Jeffrey and Samuels (1976), Carnine (1977), and Vandever and Neville (1976) reported that teaching letter-sound correspondences and sounding out resulted in students' correctly identifying more unfamiliar words than when students were trained on a whole-word strategy.

Haddock (1976) and Chapman and Kamm (1974) found that only when blending is directly taught will students successfully use a sounding-out strategy for attacking words.

"…teaching letter-sound correspondences and sounding out resulted in students' correctly identifying more unfamiliar words than when students were trained on a whole-word strategy."

Weisberg and Savard (1993) found that requiring children to "not stop between the sounds" when they blended, or sounded out, words was more effective than allowing children to stop between the sounds.

After children have learned a few letter-sound correspondences, begin showing teaching them how to blend the sounds into words by moving sequentially from left to right through the sounds as they "sound out" words. This is a "synthetic" phonic approach.

Technical notes:

"…only when blending is directly taught will students successfully use a sounding-out strategy for attacking words."

Chapter 5

Prediction and context are not useful strategies for word recognition.

Stanovich and Stanovich (1995) recently summarized the research findings regarding the utility of prediction as a strategy for word recognition:
"An emphasis on the role of contextual guessing actually represents a classic case of mistaken analogy in science and has been recognized as such for over a decade….It is often incorrectly assumed that predicting upcoming words in sentences is a relatively easy and highly accurate activity. Actually, many different empirical students have indicated that naturalistic text is not that predictable. Alford (1980) found that for a set of moderately long expository passages of text, subjects needed an average of more than four guesses to correctly anticipate upcoming words in the passage (the method of scoring actually makes this a considerable underestimate). Across a variety of subject populations and texts, a reading's probability of predicting the next word in a passage is usually between .20 and .35 (Aborn, Rubenstein, & Sterling, 1959; Gough, 1983; Miller & Coleman, 1967; Perfetti, Goldman, & Hogaboam, 1979; Rubenstein & Aborn, 1958).

Learning Dynamics blending instruction is based on research stating that children who did "not stop between the sounds" when they blended was more effective than allowing children to stop between the sounds (Weisberg and Savard, 1993). Learning Dynamics Reading instructs teachers to show their students exactly how to sound out words and to give them the opportunity to practice every day. Only direct blending instructions (like those in Learning Dynamics Reading) ensure students will be successful using a sounding-out strategy for attacking words (haddock, 1976; Chapman and Kamm, 1974). Students become comfortable blending from left to right as they practice "turning on their motors" to blend.

5. USE CONNECTED DECODABLE TEXT FOR CHILDREN TO PRACTICE THE LETTER-SOUND RELATIONSHIPS THEY LEARN

The findings of the NICHD research emphasize that children need extensive practice applying their knowledge of letter-sound relationships to the task of reading as they are learning them. This integration of phonics and reading can only occur with the use of decodable text. Decodable text is composed of words that use the letter-sound correspondences the children have learned to that point and a limited number of sight words that have been systematically taught.

In Learning Dynamics Reading, children begin to blend and decode after learning only 5 letter-sound relationships. As new letter-sound relationships are introduced, children are asked to read books that incorporate these along with what they have already learned.

To ensure students are able to apply their phonics knowledge to real reading, every lesson provides practice reading connected decodable text. The reading materials included in Learning Dynamics Reading coordinate with the letters and sounds children have learned up to that point so children can approach new reading material with familiarity and confidence. There are 33 books included in the Learning Dynamics Reading program.

Blue Books: 13 books focusing on simple blends and short vowel sounds, includes 3 Pre-Books.

Orange Books: 10 books to be read in conjunction with the Blue Books. More practice for learning initial blending and decoding skills.

Red Books: 10 books which incorporate long vowel sounds and vowel combinations.

To ensure students able to apply their phonics knowledge to real reading, every lesson provides practice reading connected, decodable text. Learning Dynamics reading books start out simply and then build upon each other as new letter-sound correspondences are learned.

Learning Dynamics Reading introduces three Pre-Books during the initial decoding process. The Pre-Books are very simple (1-3 words per page) and are designed to foster confidence and a sense of accomplishment as beginning readers practice reading words and turning pages of their very own books.

Technical notes:

Indeed, as Gough (1983) has shown, the figure is highest for function words, and is often quite low for the very words in the passage that carry the most information content." (p. 90)

Stanovich and Stanovich (1995) also summarize the findings regarding the role of context in reading acquisition. Of the three cuing systems frequently mentioned in reading (semantic, syntactic, and graphophonemic cues), the semantic and syntactic cuing systems seem to play a minor role. Recent eye movement research indicates that good readers do not sample the text and predict to recognize words efficiently, but rather see every single letter on the page. *"The key error of the whole language movement is the assumption that contextual dependency is always associated with good reading. In fact, the word recognition skills of the good reader are so rapid, automatic, and efficient that the skilled reader need not rely on contextual information. In fact, it is poor readers who guess from context-out of necessity because their decoding skills are so weak." (p. 92)*

In the NICHD intervention studies (Foorman et al., 1997; Torgesen et al., 1997), teaching children to use context and prediction as strategies for word recognition resulted in greater number of reading disabilities than instruction that taught children to use their letter-sound knowledge as the primary strategy for word recognition.

The initial texts that children read should be code-based.

A code-based text is composed of words that use only a limited number of sight words that have been systematically taught and the letter-sound correspondences the children have learned to that point. As the children learn more letter-sound correspondences, the texts can become more sophisticated. Texts that are less code-based, using words which the children are not able to figure out using what they have learned about letter-sound correspondences, result in less systematic instruction and the phonological knowledge the children gain is not integrated with actual reading.

Technical notes:

At these early stages of learning to read, the children can, of course, continue to hear stories the teacher reads to them and build their comprehension skills through oral work. Only after the children have learned enough letter-sound correspondences to decode authentic text should they be expected to do so (Brown & Felton, 1990; Juel & Roper/Schneider, 1981; Vellutino, 1991).

" Predictable text encourages children to figure out words by looking at the picture or other words in the sentence – anywhere but inside the word – for clues about how to read the word. These are false strategies for reading because they do not work with authentic text. These guess strategies must later be unleard in order to become good readers."

In reviewing the problems of a whole language approach, Foorman (1995) commented, "Thus, to the extent that meaning-oriented programs include instruction in phonic principles, there is little opportunity to practice applying these principles in connected reading. On the other hand, just because a program is described as a phonics program, one cannot assume that there will be a good match between phonic generalizations taught and opportunity to exercise the generalization in text" (p. 377).

For example, the first book children read in Learning Dynamics Reading is called "Pam" (also referred to as Pre-Book 1). This book only consists of words made of the first eight letters they have learned. Pre-Books 2 and 3 are designed in a similar format. See below.
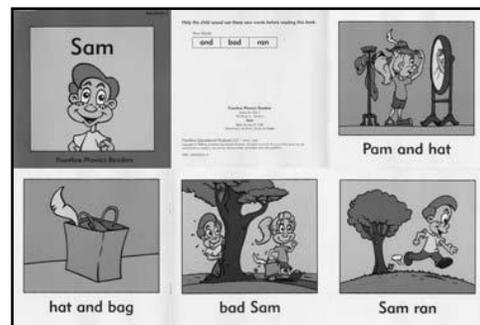
Pre-Book 1
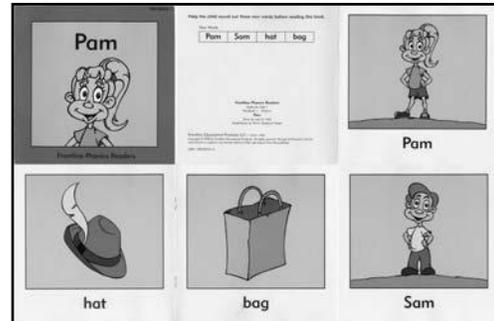
### Pre-Book 2
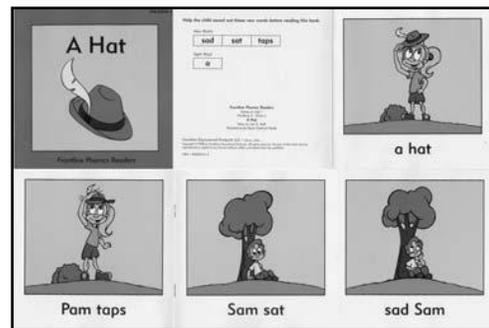
Pre-Book 3

Learning Dynamics Reading introduces three Pre-Books during the initial decoding process. These books foster confidence as beginning readers practice reading books for the first time.

As children learn additional phonemes, they read books which integrate the new letters with the letters they already learned so the text is nearly 100 percent decodable. Because there are words in the English language that do not follow traditional phonics rules such as "is," "the," and "are," children are also introduced to 0-6 highly frequent words in each book to learn by sight. Each subsequent book builds on the learning acquired in the previous book as children learn new letters. Most importantly Learning Dynamics Reading books consist of text that is about 98 percent decodable (as sight words can't count as decodable words).

Blue Book 5: Inside cover
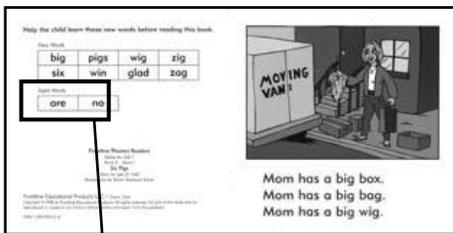
(exploded view)
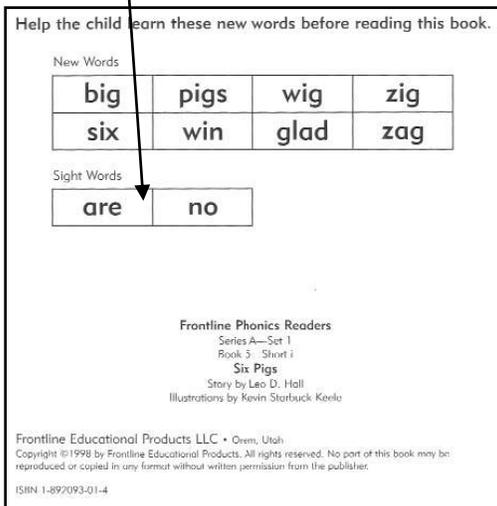
Because there are words in the English language that do not follow traditional phonics rules, students are introduced to 0-6 highly frequent words in each book to learn by sight.

Technical notes:

Pupils who learn to read with a systematic explicit approach are able to use context to figure out new vocabulary words as readily as pupils taught in a meaning-emphasis program (Carnine, Carnine, & Gersten, 1984).

Singer, Samuels, and Spiroff (1973) compared three procedures for introducing new words: words in isolation, words in sentences (context), and words with pictures. Both context and picture cues slowed acquisition. During the beginning reading stage, students often are not proficient enough in decoding to benefit from context clues (Groff, 1976; Hochberg, 1970), and, in fact, the context clues may draw their attention away from the letters that make up the word.

"Children learning sound-symbol relationships need ongoing practice using their growing knowledge of phonics in the context of real reading. This is only possible with the use of connected decodable text."

In review of the research on using pictures to facilitate student learning of a sight vocabulary, Samuels (1970) found that pictures hamper performance. The experiments usually compared two groups – one in which a picture appeared with each word and one without pictures. When pictures accompanied the words, students required longer to reach criterion and made more errors than when pictures were not present. More recent research tends to confirm these findings (Harzem, Lee, & Miles, 1976).

Contrary findings do not test the students on word identification without the pictures (Denberg, 1976). Since the pictures were always present in Denburg's study, the students may have learned nothing more than picture reading. The reason for having illustrations is that they increase student enjoyment (Samuels, Biesbock, & Terry, 1974).

Technical notes:

Providing pictures which students see after they have read the story allows students to check their comprehension. In other words, they create their own visualization of the story, then compare it with the picture: "Now you've read the story. Turn the page and look at the picture."

Although Goodman (1965) found that students correctly identified more words when they were presented in context (rather than isolation), other researchers did not replicate this effect (Williams & Carnine, 1978). Giibson and Levin (1975) also conclude that the sooner a child learns that what s/he says is determined by the letters that make up the words, the better: "Many children start school with the notion that reading is speaking with books open in front of them. The speech is not nonsensical. Still, the earlier the realization by the child that what he says must be determined by what is printed, the better is the prognosis for early reading achievement" (p. 282).

Providing decodable text allows children to apply the letter-sound relationships they have learned to their reading of the sentence, so the phonics component is integrated into the child's real reading.

Examine the progress that takes place in approximately 15 weeks of using Learning Dynamics Reading as children move from Blue Book 2 to Blue Book 9:

Week 6
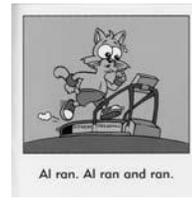
Blue Book 2: Ham and Jam

Al is a cat.
Al has ham.
Al has jam.
Al has ham and jam.
Al is a fat cat.
Al is a sad fat cat.
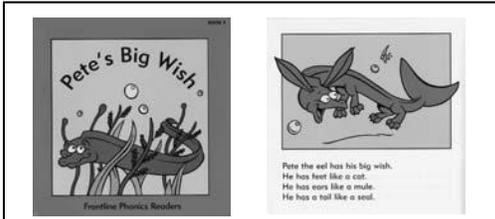Al ran. Al ran and ran.
Al is a cat.

Week 8
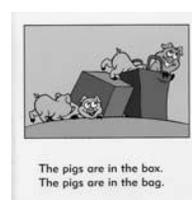
Blue Book 5: Six Pigs

Mom has a big box.
Mom has a big bag.
Mom has a big wig.
Sam has six pigs.
No pigs! Sam is sad.
The pigs zig. The pigs zag.
The pigs zig and zag.
The pigs are in the box.
The pigs are in the bag.
The pigs are in the wig. No pigs.
The pigs win. Sam is glad.

Week 15

Blue Book 9: Pete's Big Wish

Pete the eel has a home deep in the sea. He can swim. He can zig and zag. Pete likes to hide in the sea weed. Pete likes to read "I see a cat. I see a mule. I see a seal." "I wish I had feet like a cat. I wish I had ears like a mule. I wish I had a tail like a seal." Pete the eel has his big wish. He has feet like a cat. He has ears like a mule. He has a tail like a seal. His cat feet are big. He can not swim. He can not zig and zag. "I do not like feet like a cat." His mule ears are big. He can not hide in the sea weed. "I do not like ears like a mule." His tail is big and wide. He can not get in a hole. "I do not like a tail like a seal." "I wish. I wish. I wish." Pete has no cat feet. He has no mule ears. He has no seal tail. "I am an eel. I am glad."

Decodable texts provide children a context for using their new knowledge of letter-sound relationships in real reading. Although texts become incrementally more difficult as children learn new letter-sound relationships, students approach these books with confidence and success.

6. USE INTERESTING STORIES TO DEVELOP LANGUAGE COMPREHENSION

Learning Dynamics Reading teaches children to rely on their knowledge of phonics (letter-sound relationships) to read, rather than to guess words entirely from context. The decodable texts provide ample practice for students to become fluent and automatic in their decoding. Fluency and automaticity in decoding opens the door to comprehension. Children who decode effortlessly and automatically will have the mental space then to devote to comprehension.

Technical notes:

Chapter 6

Build accuracy and fluency with daily performance measures, goals, and decision rules for making instructional changes.

There is a strong relationship between oral reading fluency and reading comprehension (Fuchs, Fuchs, & Maxwell, 1988; Potter & Wamre, 1990; Shinny, Good, Knutson, Tills, & Collins, 1992). Word identification becomes less capacity-demanding as experience with words increases (Stanovich, 1991).

Technical notes:

Stahl and Heubach (1993) found that stressing fluency and automaticity had large effects on second graders' reading growth.

Research by Bohannon (1975), Jenkins, Mayhall, Peschka, and Townsend (1974), and Mirkin (1979) has shown that the reading performance is best when teachers base their instructional decisions on daily performance measures of reading fluency and accuracy. Mirkin (1979) compared reading improvement under four conditions: (a) daily oral reading practice; (b) daily practice plus goal setting; (c) daily practice and goal setting plus daily measurement; and (d) all previous components plus specific decision rules for making instruction decisions. She found the last condition superior.

Any controlled text, whether it is controlled for decidability or for vocabulary, will not be able to provide entire coherent stories in the *early* stages of reading (as seen in Pre-Books 1-3), although the words are 100 percent decodable. During this early stage of reading acquisition, the children can still benefit from stories that the teacher reads to them.

However, students will be reading story lines and comprehending story characters and plots in the following Learning Dynamics reading books just two weeks after the first book is introduced. Children find they are the same age as the characters in the books and that the stories contain subject matter including family values, siblings, animals, friends, relationships, sharing, and problem solving.

Comprehension strategies and new vocabulary should be taught using orally presented stories and texts that are more sophisticated than the early decodable text the children read. The teacher should read this text to the children and discuss the meaning with them. After the children become fluent decoders, they can apply these comprehension strategies to their own reading.

Learning to read is a means to an end. The reason we read is to learn new information and communicate with the world around us. If we cannot comprehend what we are reading, there is no point to reading instruction. Learning Dynamics Reading builds on reading comprehension by asking questions at the end of each book. For example, using the three story lines from the books examined above, there are 3-6 comprehension questions listed at the end of each book. Parents and teachers are encouraged to ask the child comprehension questions to ensure children are deriving meaning from reading instruction.

Ham and Jam

What made Al so fat?
What did Al eat first?
What did Al do to become thin again?
Why is Al smiling?

Six Pigs

What is Mom doing?
Why does she have boxes and bags?
Do you think a pig is a good pet?
What about six pigs?
What are the pigs trying to do?
Why did the pigs win?

Pete's Big Wish

What three things did Pete wish for?
Did his new cat feet help him move fast?
Why didn't he like the mule ears?
Why didn't he like his big tail?
At the end of the story, why is Pete happy?

Learning Dynamics Reading builds reading comprehension skills through questions asked at the end of each reading book. Teachers are encouraged to ask these questions to ensure students are deriving meaning from reading instruction.

Learning Dynamics Reading encourages teachers and parents to read to their children every day. This is an opportune time to ask a lot of questions to make sure children are comprehending. Comprehension usually lags in children's reading as they are first blending and decoding, but children soon catch up after they become automatic and fluent decoders through extensive practice reading decodable text.

Technical notes:

SUMMARY:

In brief, Learning Dynamics Reading follows decades of research performed by the NICHD and findings of the NRP. Learning Dynamics adheres to all six major implications in teaching a child to read as presented by *A Synthesis of Research on Reading from the National Institute of Child Health and Human Development (1997)*. Learning Dynamics strongly believes in the methodology not only because the methods have been proven and replicated in studies, but also because they receive successful feedback from parents and teachers coast-to-coast on a daily basis.

During the 2000-2001 school year, a study conducted in Kennewick, Washington, compared reading scores for several kindergartens in Kennewick School District with reading scores for preschool students in the Learning Dynamics Preschool which uses Learning Dynamics Reading exclusively in the Kennewick School District's own kindergarten test – which includes letter recognition, letter sounds, beginning word sounds, and rhyming – the preschool graduates out performed Kennewick's outgoing kindergartners in every school but one (a national award winning school). (For full case study summary, see Appendix B.)

Additionally, the Developmental Reading Assessment (DRA) test was administered to the preschoolers who had completed Learning Dynamics Reading, a test also used with Kennewick first graders. There are 11 books in the first-grade DRA test, each representing a gradual increase in reading ability from first month through the ninth month. The average preschool graduate who had received Learning Dynamics Reading could read – with 90 percent proficiency – through Book 6 (actually 6.21) on the average, slightly above first grade midpoint. In other words, Learning Dynamics graduates from preschool were performing 1.5 years above grade level in reading.

If parents and educators understand and use these major implications for early reading instruction, children will be better equipped with the skills they need to become successful, confident readers. Learning Dynamics Reading mirrors the synthesis of NICHD research summarized by Grossen and the NRP research. Parents and teachers are strongly encouraged to become active participants in providing their children the quality education Learning Dynamics Reading provides.

Read through the lesson.		**Lesson 8**
LETTER: Hh		**Hh**
PRONUNCIATION: "hhhh" as in horse		
PREPARATION: Punch out Henrietta Horse from the stand-up letter piece card.		
LETTER REVIEW: Review the previous letters Mm, Aa, Pp, Ss, Tt, and Bb.		
ALPHABET SONG: Play track #1 on the CD. Show the picture flash cards to the child as you sing along with the CD.		

LETTER LESSON:

Introduction: Show the child the blue letter card and say:	*This is the letter "h." There is a big "H" and a small "h." It says "hhhh." What letter is this?*
Point to the card and say "h" together. Ask the child:	*What does it say?*
Say "hhhh" together.	*Good!*
Story: Use the horse to tell the story. Emphasize the letter sound.	*Once there was a **h**appy **h**orse named **H**enrietta. She **h**ad pretty golden **h**air and walked with **h**er **h**ead **h**eld **h**igh. She would **h**oller to the **h**ogs, "**H**ello." They only laughed, "**h**a, **h**a, **h**a." She was so sad she wanted to **h**ide in a **h**ole. Then one day a **h**ummingbird **h**ummed in **H**enrietta's ear, "put on your **h**appy **h**at, and they will no longer laugh "**h**a, **h**a, **h**a." So **H**enrietta **H**orse did as she was told. She put on **h**er **h**appy **h**at, and she was **h**appy ever after because no one laughed at her. Everyone was just **h**appy.*

Letter Song: Play track #8 on the CD. Sing along with the "h" song.

Worksheet: Found in the child's workbook on page 8. Show the child how to write the letter "h." Cross out the pictures that *do not* start with the sound of "hhhh." Color the pictures that *do* start with the "hhhh" sound.

Letter Song: Sing the "h" song again. Repeat the chant of "h" words, pointing to the words and pictures on the back of this page as you chant.

Final Check: Ask the child:	*What letter is this? What does it say? Can you tell me a word that starts with the sound of "hhhh"? Good! Now you may keep this little horse. It will help you remember what "h" says.*

OPTIONAL ACTIVITY: Say "h" words while hanging a tissue loose in front of your mouth. It will flutter if the sound is correct. (Give the child a tissue to hold in front of his mouth as he says "hhhh." The tissue should flutter if the child is saying it correctly.)

BLENDING: Blend the previous letters together to form words—hat, ham, bat, sat.

11

Hh

Point to these words as you sing the letter song.

head

hair

horse

hummingbird

hat
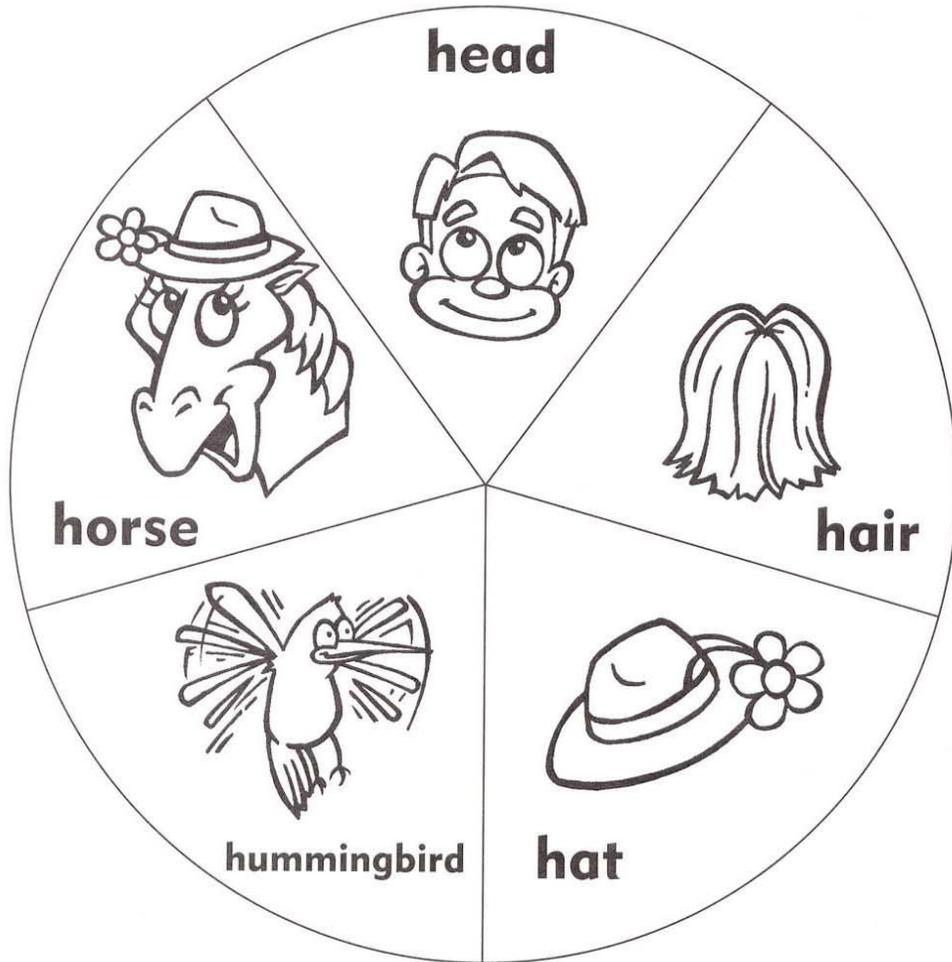
CASE STUDY

Learning Dynamics Reading was developed over the course of 17 years by educators who used and tested Learning Dynamics Reading methods in their classrooms. Learning Dynamics Reading is the result of teaching thousands of children to read, and contains what teachers found to be the most fun and successful teaching tools. The program was piloted in Learning Dynamics Preschools for 17 years. Learning Dynamics Preschools continue to have success using the Learning Dynamics Reading Program for their reading instruction exclusively. The following case study was submitted by the International Education Institute in Kennewick, Washington. The study compared reading scores for several kindergartens in the Kennewick School District who were not using Learning Dynamics Reading with reading scores for students in the Learning Dynamics Preschool who were using Learning Dynamics Reading.

On June 7, 2001, six educators administered Kennewick's kindergarten and DRA first grade tests on a random sampling of Learning Dynamics preschoolers. The 19 students tested were randomly selected from the Learning Dynamics' approximately 115 6-hour-per-week preschoolers. The preschool also has about that many 4-hour-a-week kindergartens.

In the Kennewick School District's own kindergarten test – which includes letter recognition, letter sounds, beginning word sounds, and rhyming – the preschool graduates outperformed Kennewick's outgoing kindergartners, as shown below.

School	Entering Score	Final Score	(Total 98 pts. Possible)
Canyon View	40.13	89.64	
Edison	27.01	82.43	
Vista	36.91	93.86	
Westgate	28.21	93.86	
Kenn. School Average	33.07	90.60	
Learning Dynamics	n/a	95.42	

The only individual school whose end-of-year <u>kindergartners</u> outperformed Learning Dynamics' end-of-year <u>preschoolers</u> was Vista Elementary, a national award-winning school.

Additionally, the Developmental Reading Assessment (DRA) test used on Kennewick first-graders was also administered. There are 11 books in the first grade DRA test, each representing a gradual increase in reading ability from first month through the ninth month. The Learning Dynamics preschoolers could read – with 90 percent proficiency – through Book 6 (actually 6.21) on the average, slightly above the half way point in the first-grade reading skills test.

The Learning Dynamics preschoolers only attend class a maximum of 6 hours a week, of which less than 2 hours is spent on the reading curriculum. Most kindergartners in the US are in school approximately 15 hours per week, of which at least 5 hours can be spent on reading-related curriculum. Kindergartners are spending 2-3 times more time on reading curriculum than the tested preschoolers, but they are not performing as well. So, if kindergartners could spend even half of their current classroom reading time on Learning Dynamics Reading curriculum and achieve only the same level of reading as the Learning Dynamics preschoolers, that would still have a tremendous impact on reading levels in US public schools.

One reading specialist in Entiat, WA said,

"I have since acquired Learning Dynamics Reading and am currently testing our Kindergarten students with the Kennewick Kindergarten Test and Reading Level Assessment that tests decoding skills. In the PM class, I have one at a grade level of 3.7 and another at 2.5, and I'm just getting started! We are thrilled with the program and its results."

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