Flying Start to Literacy®

Research Base to *Flying Start to Literacy*

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Contents

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INTRODUCTION

This paper discusses the research leading to the development of the reading program *Flying Start to Literacy* for teaching literacy from Early Emergent (preschool) to Advanced Fluent literacy in the elementary grades. The research into students' literacy development from Early Emergent through to Advanced Fluent continues to expand in response to the challenge of the increasing diversity of literacy learners (ILA, 2017).

There are three key principles underpinning *Flying Start to Literacy*:

1. Texts from the earliest levels through to more fluent reading need to be meaningful (Hiebert, 2017).

2. The paired narrative and informational texts include language structures, vocabulary, and morphological and phonological features with enough repetition for successful learning (Hiebert, Godwin, & Cervetti, 2017).

3. The texts encourage volume of reading, providing reading practice at each developmental stage of learning literacy over a substantial period of time (Rasinski, Samuels, Hiebert, Petscher, & Feller, 2011).

STAGES OF LITERACY LEARNING

While there are developmental stages of literacy learning from Early Emergent to Advanced Fluent, it is important to remember that each student is unique with diverse experiences, and that students vary enormously even within the same age and cultural group (Snow & Matthews, 2016).

SHARED READING USING BIG BOOKS IN THE EARLY EMERGENT STAGE

In the Pre-K Early Emergent stage, there is an extensive body of research addressing the importance of providing young students with shared-book reading experiences in the preschool and kindergarten classroom (Mol et al., 2009; National Early Literacy Panel, 2008).

THE GRADUAL RELEASE OF RESPONSIBILITY

The research emphasizes the importance of scaffolding reading development using the gradual release of responsibility model (Pearson & Gallagher, 1983), where reading is modeled, shared, and guided with support until students are able to read independently.

In this model, students learn to read texts that might otherwise be considered too difficult. The teacher reads aloud, models thinking, and discusses the meaning (Holdaway, 1982). This enables students to successfully read texts that might be considered too difficult (Stahl, 2012).

RESEARCH EVIDENCE	What this means in *Flying Start to Literacy* Early Emergent reading stage A-B (1-2)
Developing oral vocabulary	• Develops oral vocabulary linked to the illustrations and photographs. • Extends oral vocabulary as students talk about the book and share experiences with others. • Builds oral vocabulary with the teacher.
Print knowledge	Introduces concepts of: • front and back covers • title of the book • directionality of print from left to right and from top to bottom • punctuation—capital letters, periods, commas, question marks, and quotation marks.
Predicting the text	• Uses the title and cover to predict what the book will be about. • Uses language patterns and illustrations to predict the story and to understand the text.
Listening comprehension	• Students listen carefully and can retell the events in a narrative. • Students can describe the main ideas in an informational book.
Recognizing high- frequency words	• Students recognize basic high-frequency words. • Students recognize high-frequency words in a variety of contexts.
Developing phonemic awareness and phonics	• Students begin to notice and name some letters. • They can hear initial sounds in words, identify words that rhyme, hear syllables in words, and notice how sounds can be linked to letters.
Fluency	• Students join in by reading with expression and can vary their voice and pitch. • Students can demonstrate phrasing as they join in to read aloud.
Joining in with the group	• Students listen and follow along as the teacher reads. They begin to join in with shared reading.
Enjoying the experience of reading	• Students want to reread the text again and again. They enjoy repeated readings of the familiar text patterns and talking about the book

THE RESEARCH EVIDENCE

ORAL LANGUAGE VOCABULARY

Students' oral language vocabulary and academic book language benefits from shared reading. In shared reading, adults provide rich vocabulary instruction that includes student-friendly definitions and rich explanations of word meanings (Beck & McKeown, 2007).

PRINT KNOWLEDGE

Intervention research has shown that educators' use of specific techniques, such as elaborating on print and illustrations, word meanings, and referencing print, has benefits to students' development of the important skill of how print works (Hargrave & Sénéchal, 2000).

LISTENING COMPREHENSION AND INFERENTIAL LANGUAGE

With the frequent use of shared reading, young students' listening comprehension and use of higher order inferential thinking improves. Shared reading matters for students' oral language and literacy in preschool. The adults' reading style in shared book reading continues to be related to student literacy skills through kindergarten and first grade. When teachers use inferential comments and questions, relate the texts to students' lives, and explain and analyze the text, the students themselves use more higher-level inferential language (Zucker et.al. 2010).

SHARED READING AND FLUENCY

Shared reading with big books encourages multiple readings of one text. The multiple readings, with careful scaffolding by the teacher, builds fluency. Fluency of reading is important for reading comprehension (Stahl & Heubach, 2005).

Book selection, quality interactions around books, and the development of students' vocabulary and inferential skills are critical in interactive shared book reading. The way books are shared can open or close learning opportunities and the use of language for wide purposes (Massey, 2013).

SHARED READING IN PRE-K AND LATER LITERACY OUTCOMES

Shared reading in Pre-K has demonstrated positive literacy effects though kindergarten and first grade. Research reveals that the teachers' extra-textual talk is positively linked to Pre-K expressive vocabulary, Pre-K letter knowledge, kindergarten receptive vocabulary, and first grade reading comprehension. A study by Zucker et al. (2013) involving 28 preschool teachers and 178 students, found that a shared reading program remained associated with students' vocabulary skills through kindergarten and linked to first grade literacy skills (Zucker, Cabell, Justice, Pentimonti & Kaderavak, 2013).

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EARLY EMERGENT
THROUGH TO EARLY FLUENT STAGES

Over a decade of research into beginning literacy development shows that there are key interrelated elements in beginning reading texts that scaffold Early through to Early Fluent literacy success. These interrelated elements are key vocabulary, high-frequency words, text types, text difficulty, phonics, fluency and comprehension, the links between reading and writing, and assessment for instruction.

The texts that students read when beginning reading have a profound effect on students' developmental trajectories (Hiebert & Sailors, 2009). All students beginning reading and those in the lowest 40 percent require texts that move at an appropriate pace and support the learning of critical words, and common and consistent patterns within words.

Helman and Burns (2008) suggest that texts with the following features scaffold, in particular English Language Learners', reading success:

- phonetically regular and high-frequency words
- words of high interest to students' personal lives
- words that represent familiar concepts and images
- high word repetition rates
- a low ratio of unfamiliar words (Hiebert, Brown, Taitague, Fisher, & Adler, 2004).

These scaffolds will decrease the cognitive load for students learning to speak and read English at the same time.

RESEARCH EVIDENCE	What this means in *Flying Start to Literacy* **Emergent to Early Fluent reading stages C-J (3-18)**
Key vocabulary is controlled and introduced systematically *Hiebert, 2017; Hiebert & Sailors, 2009; Helman & Burns, 2008; Mesmer & Cumming, 2009.*	• Key vocabulary occurs in paired books, in different sentence structures and text types. • Key vocabulary is controlled and repeated. • The key vocabulary informs both students' oral language and literacy development.
High-frequency words have a high rate of repetition *Clay, 2002; Elley, 1989; Hargis, Terhaar-Yonkers, Williams, & Reed, 1988; Helman & Burns, 2008; Hiebert, Brown, Taitague, Fisher, & Adler, 2004; Fry & Kress, 2006.*	• Paired books present the same high-frequency words in different sentence structures and text types. • High repetition rate of high-frequency words and a low ratio of unfamiliar words. • High-frequency words are gradually and systematically introduced and reused.
Phonics and phonemic awareness is taught systematically and explicitly *Snow & Matthews, 2016; Ehri, Nunes, Stahl, & Willows, 2001; Torgerson, Brooks, & Hall, 2006; Paris, 2005.*	• Systematic and explicit teaching of phonemic awareness and phonics. • A developmental schema of phonemic awareness and phonics provides support for readers. • Phonics is viewed as one of many important information sources in the reading process.
Text types are paired for sustained reading plus range of reading strategies *Duke & Billman, 2009; Derewienka, 1990; Barnes, Grifenhagen, & Dickinson (2016); Mesmer, Cunningham, & Hiebert, (2012).*	• Text types have different purposes, structures, and text features. • Key vocabulary and high-frequency words in different text types build reading strategies for texts with different purposes. • For some readers, informational texts may be more engaging than narrative texts.
Text difficulty is carefully sequenced to build reading strategies *Clay, 2002; Fountas & Pinnell, 1996.*	• Texts are scaffolded into six stages and 24 levels of books. • Paired books have familiar vocabulary and different sentence structures to consolidate reading strategies at each level.
Fluency enhances comprehension *Pikulski & Chard, 2005: Pressley, Gaskins, & Fingeret, 2006; Rasinski, 2006.*	• Reading fluency—the ability to recognize words accurately and rapidly, and to group words in phrases—is important for comprehension.
Reading and writing are linked *Derewianka, 1990; Paquette, 2007; Williams, 2017; McCarrier, Pinnell & Fountas, 2000.*	• Writing encourages students to match the spoken word to the written word. • In writing, students play with words and word order in context.
Ongoing assessment informs instruction *Snow & Van Hemel, 2008; Genishi & Dyson, 2009.*	• Ongoing assessment forms part of the teaching sequence.

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THE RESEARCH EVIDENCE

KEY VOCABULARY

- Key vocabulary occurs in paired books within different sentence structures and text types.
- Key vocabulary is controlled and constantly revisited.
- The key vocabulary informs both students' oral language development and literacy development

Key vocabulary words are words of high interest to students and represent familiar concepts and images. Helman and Burns (2008) write that new key vocabulary often requires visual support through pictures, objects, or actions, and it is important to be able to illustrate these key words. The key vocabulary is made up of familiar verbs, adjectives, and nouns and is controlled so that these words are met frequently.

When key vocabulary is controlled and placed in sentences with a high proportion of high-frequency words, the reader's confidence builds because of repetition and practice (Hiebert, 2017; Mesmer & Cumming, 2009). The frequent revisiting of key vocabulary means that students build confidence in recognizing words that can then be part of the reader's sight vocabulary. The key vocabulary is introduced carefully and sequentially in a variety of sentence structures. The use of different sentence structures in paired books supports students' attention to one-to-one matching of the spoken and written word.

HIGH-FREQUENCY WORDS

- Paired books present the same high-frequency words in different sentence structures and text types.
- There is a high repetition rate of high-frequency words and a low ratio of unfamiliar words
- High-frequency words are gradually and systematically introduced and reused.

For specific words to become part of students' sight vocabulary, they need to have been read dozens of times (Hargis, Terhaar-Yonkers, Williams, & Reed, 1988; Beck, McKeown, & Kucan, 2008).

The high-frequency words in *Flying Start to Literacy* were based on Elley (1989); Clay (2002); and Fry & Kress (2006). A distinction was made between high-frequency words in students' writing and high-frequency words in reading. The high-frequency words students need in order to read was considered important as words in students' writing can be ephemeral such as the noun 'princess,' as it may occur often in girls' writing after the release of a movie or television show. However the word 'princess' is less frequent in the texts students read.

The high-frequency words in *Flying Start to Literacy* are based on Fry's 300 High-Frequency Words and these words are listed by frequency and include all parts of speech. In the book *Me* (*Flying Start to Literacy*, Early Emergent Stage), there are 21 running words and the high-frequency words are repeated seven times in the book. So in the very beginning books, the ratio of high-frequency words to total words is 2:3.

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PHONICS AND PHONEMIC AWARENESS

- Systematic and explicit teaching of phonemic awareness and phonics.
- There is developmental schema of phonemic awareness and phonics providing support for students.
- Phonics is viewed as one of many important information sources in the reading process.

Developmentally, in the early stages of reading, phonemic awareness enables students to map sounds to letters. Phonemic awareness is the ability to segment the smallest unit of the spoken word into the phoneme (Foorman & Torgesen, 2001). In a met-analysis of the effects of phonemic awareness programs, Ehri, Nunes, Stahl, & Willows (2001) found that phonemic awareness training had an impact on students' word reading and comprehension.

Unless beginning readers know that words consist of sequences of sounds that can be manipulated and juxtaposed (phonemic awareness), they are unlikely to benefit from phonics instruction or to acquire sound/symbol relationships by themselves (Juel, 1994). Phonemic awareness is one small aspect of phonological awareness, which is part of a bigger notion called metalinguistic awareness, or awareness of the functions and features of language (Chapman, 2003).

Phonics is a 'constrained' skill that is readily teachable because the skills are finite – for example, the 26 letters of the alphabet, or a set of 20 to 30 common spelling rules (Snow & Matthews, 2016). These skills have a ceiling and most young students can and do achieve perfect performance. Torgesen, Brooks, & Hall (2006), in a review of the many diverse ways to teach phonics, recommend that 'Since there is evidence that systematic phonics teaching benefits students' reading accuracy, it should

be part of every literacy teacher's repertoire and a routine part of literacy teaching, in a judicious balance with other elements' (Torgesen, Brooks, & Hall, 2006). A combined approach of synthetic phonics and analogy, using word families, appears to enable more students to acquire decoding skills in a shorter time period (Pressley, Gaskins, & Fingeret, 2006; NICHD, 2000).

While keeping in mind that all beginning readers are different and have diverse experiences with written texts, many students and teachers benefit from a developmental schema for introducing phonics. The developmental schema needs to be based on explicit and systematic teaching by:

- introducing consonants and vowels that can be combined to make words for the students to read

- teaching a number of high-utility, sound–letter relations first and adding lower utility relations later

- providing blending activities with words that contain the sound–letter relations that the students are learning.

For the developing reader, there are many opportunities to use phonic skills and strategies with words that are phonologically accessible, without resorting to simplistic decodable books where meaning is jeopardized.

In beginning reading, confidence is built if new words can be accessed easily by using previously learned phonic strategies. Systematic phonics combined with key vocabulary and high-frequency words, repeated often and introduced slowly, work to maintain the reader's self-confidence and lessen the cognitive load of learning to read.

TEXT TYPES IN PAIRED BOOKS

- Text types have different purposes, discourse, syntax, and text features.
- Key vocabulary and high-frequency words within different text types, builds reading capacity in texts that have different purposes.
- For some readers, information texts may be more engaging than narrative texts

There are many ways that text types can be classified, from narrative to poetry, biography, and informational texts. The framework developed by Derewianka (1990) offers clear guidance for the reading and writing of the following text types: recount, narrative, procedure, report, explanation, and argument.

Text types contain 'academic language,' which is a register that contains specific lexical and grammatical features (Barnes, Grifenhagen, & Dickinson, 2016). Academic language differs from everyday oral language because it is de-contextualized and may be in the form of a narrative, report, explanation, procedure, or argument. Each text type features specialized vocabulary and discourse patterns as well as specific phrasing and discourse markers – for example in literature, 'once upon a time' and 'before long.' Informational texts feature specialized discourse patterns such as 'in conclusion' and 'for example' (Snow, 2014).

In Emergent to Early Fluent texts, there is a strong argument for using paired narrative and informational books. Soalt (2005) found that when narrative and informational texts are paired, they build students' engagement with reading. They also build vocabulary as the paired texts provide opportunities to encounter the same word or group of conceptually related words in a variety of different texts. Paired texts are motivating because they can offer multiple entry points suited to individual preferences for narrative or informational texts. In addition, two texts on the same topic and same level of difficulty offer multiple perspectives on a single subject – affective and objective points of view – that can broaden students' understanding of the topic as well as the features or the text type.

In a recent review of two major basal reading programs, Moss (2008) found there was a dearth of persuasive and argumentative texts and procedural texts. Informational texts provide examples of reading and writing for authentic purposes where students can find information on a topic or learn how to make or construct something (Duke, Purcell-Gates, Hall, & Tower, 2006). A range of text types acts as a model for writing for different purposes and writing with different language features. The more experience students have with reading and learning from informational texts, and the more familiar they are with the purpose and features of these texts, the more likely they will be effective and efficient readers in the future (Duke & Billman, 2009).

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TEXT GRADIENTS

- Texts are scaffolded into 6 stages and 24 levels of books.
- Paired books have familiar vocabulary and different sentence structures to consolidate reading strategies at each level.
- Text leveling as a narrow regime is open to critique as readers also need to select texts that they want to read.

Many years ago, Clay (1979) suggested using text gradients as a scaffold for beginning readers and readers who are experiencing difficulty. She suggested that when a graded sequence of reading is available, students must not be given a book that calls for too great a step forward. Clay suggested grading texts into difficulty levels according to vocabulary, sentence structure, meaning or concept-load, conventions of print (such as justified print versus one sentence per line), or changes in language style, such as an increase in embedded clauses. The leveling of books, however, is a qualitative judgment of the text gradient (Clay, 2002; Fountas & Pinnell, 1996).

While text levels are important, Mesmer (2006) found in a survey of teachers' use of beginning reading materials that teachers are guided primarily by instructional purposes and students' requirements rather than by particular programs or grade levels. Importantly, all students need texts of an appropriate level of complexity and because students differ, no single text, nor any single task, can be appropriate for all students (Hill, 2001). In addition, leveling is much easier with narrative texts compared to informational text gradients (Hoffman, 2017). While different materials can serve different purposes with different readers, Hiebert (2009) argues that relative to the amount of the expenditure on texts, the amount of research on appropriate texts for beginning and struggling readers has been inconsequential.

READING VOLUME AND FLUENCY

- Reading fluency—the ability to recognize words accurately and rapidly and to group words in phrases—is important for comprehension.

According to Rasinski (2006), there are three key elements of reading fluency:

- accuracy in word decoding
- automaticity in recognizing words
- appropriate use of prosody or meaningful oral expression while reading.

These three components are a gateway to comprehension. It is important to note that a surface view of fluency leads to practices such as simply urging students to read faster. On the other hand, a deep construct views fluency far more broadly as part of a developmental process of building decoding skills that will form a bridge to reading comprehension and that will have a reciprocal, causal relationship with reading comprehension (Pikulski & Chard, 2005).

Fluency, or reading accurately and quickly, is necessary so that the reader can choose to slow down and employ the comprehension strategies such as rereading to check the meaning, using prior knowledge, summarizing, and thinking about the ideas (Pressley, Gaskins, & Fingeret, 2006). When word-level reading is fluent, the reader's cognitive capacity enables them to use various comprehension strategies.

In addition, using appropriate texts for paired reading, echo reading, choral reading, and readers' theater encourages repeated reading of the text to build fluency (Rasinski, 2006).

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READING AND WRITING ARE LINKED

- Writing encourages students to match the spoken word to the written word.
- In writing, students play with words and word order in context.

The teaching of writing is a dilemma for teachers as the professional literature promotes student-led learning and holistic process-oriented assessment, but accountability mandates have ratcheted up demands for direct instruction and isolated skills tests (Wohlend, 2009). Genishi & Dyson (2009) state that writing demands more time than the hurried literacy time allows.

Ways to teach shared writing have been developed by Williams (2018) and McCarrier, Pinnell, & Fountas, (2000). The teaching of writing using interactive whiteboard technology and interactive talking books in whole-class writing lessons was investigated by Martin (2007). The research evidence suggested that while some students benefited from the approach, teaching students to write through examination of professional models of writing in whole-class lessons did not promote the most effective learning, even when the text was provided an interactive medium.

Books offer good models for writing. Analyzing how authors use various qualities of good writing or the six traits approach (ideas, organization, voice, word choice, sentence fluency, and conventions) can encourage students to model their stories after the experts (Paquette, 2007). Writing can also be encouraged using the different written language genres—recount, procedure, report, narrative, argument, and explanation (Derewianka, 1990).

ASSESSMENT

- Ongoing assessment forms part of the teaching sequence.

There are many component skills in early literacy, and Snow and Van Hemel (2008) write that various oral language and literacy components are of obvious importance in their own right, and that arguments about their predictive relationship to each other or to later developmental outcomes are unnecessary.

There is a need for assessment that has classroom validity to provide information for instruction. More ecologically valid formative assessment, as opposed to fragmented assessment items, includes the use of Running Records of Reading (Clay 2002), where teachers analyze students' early reading using forms of miscue analysis or running records of books read by students. Similarly, analyzing samples of students' writing enables teachers to assess students' knowledge of content, genre features, and structure, as well as letters, words, and grammatical constructions. Rather than narrow, fragmented high-stakes assessment consisting of one-minute tests of letter identification and quick assessment of reading fluency, the use of ecologically valid assessment in literacy has the potential to provide information for both accountability and teaching.

In classrooms with very diverse learners, teachers are constantly checking for student understanding in the moment-to-moment activities. Teachers make judgments based on observation, note-taking, questioning, and scaffolding within a Vygotskian framework (Genishi & Dyson, 2009). In a Vygotskian framework, teachers observe students' learning and plan in the next zone where the student is ready to learn.

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FLUENT THROUGH TO ADVANCED FLUENT STAGES

RESEARCH EVIDENCE	What this means in *Flying Start to Literacy* Fluent to Advanced Fluent reading stages K-V (19-50)
VOCABULARY IS INTRODUCED SYSTEMATICALLY *Hiebert, Goodwin, & Cervetti, 2017; Hiebert, 2017; Hiebert & Sailors, 2009.*	• Key vocabulary related to topics occurs in paired books with different text types and sentence structures. • Academic vocabulary is introduced at higher grade levels.
MORPHOLOGICAL AWARENESS *Goodwin, Lipsky, & Ahn, 2012; Hiebert, Goodwin, & Cervetti, 2017.*	• Attention to morphology improves students' ability to solve unknown words. • Less frequent words, which are more academic in nature, play an important role in texts in higher grades.
TEXT TYPES (PAIRED OR IN THREES) FOR SUSTAINED READING *Barnes, Grifenhagen, & Dickinson, 2016; Mesmer, Cunningham, & Hiebert, 2012; Duke & Billman, 2009; Derewianka, 1990.*	• Text types have different purposes, structures, and text features. • Key vocabulary, syntax, and discourse registers within different text types build the student's strategies for reading texts that have different purposes. • For some readers, informational texts may be more engaging than narrative texts.
TEXT DIFFICULTY IS SEQUENCED TO BUILD READING STRATEGIES *Hoffmann, 2017; Clay, 2002; Fountas & Pinnell, 1996.*	• Texts have a gradient of difficulty. • Books are paired or grouped with familiar vocabulary and different syntax and discourse structures to build reading strategies at each level. • Narrow bands of text leveling are open to critique as readers need to select texts that they want to read.
COMPREHENSION *LaRusso, et.al., 2016; Varga, 2017; Palincsar & Brown, 1984; Keane & Zimmerman, 1997.*	• Comprehension involves attention to academic language, perspective taking, and complex reasoning. • A focus on discussion of metacognition and metalanguage to describe reading process and text features.
READING VOLUME ENCOURAGED *Fisher & Frey, 2018; Rasinski, Samuels, Hiebert, Petscher, & Feller, 2011.*	• Reading volume is important for comprehension. • The ability to recognize words accurately and rapidly, and to group words in phrases is important for meaningful reading.
READING AND WRITING ARE LINKED *Williams, 2017; Derewianka & Jones, 2012; Paquette, 2007; McCarrier, Pinnell, & Fountas, 2000.*	• Writing encourages students to match the spoken word to the written word. • In writing, students play with words and word order in context.
ASSESSMENT IS ONGOING TO INFORM INSTRUCTION *Snow & Van Hemel, 2008.*	• Ongoing assessment forms part of the teaching sequence.

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THE RESEARCH EVIDENCE

VOCABULARY

- Key vocabulary related to topics occurs in paired books with different text types and sentence structures.
- Academic vocabulary is introduced at higher grade levels.

There are many frameworks for deciding which vocabulary to teach. For example, Biemiller's (2010) list of words worth teaching and Beck, McKeown, & Kucan's (2002) three-tier model for selecting vocabulary delineated between conversational words and the words in written texts.

1. Everyday words and basic words such as 'clock,' 'baby,' and 'happy.'

2. General academic words and synonyms of common words such as are 'fortunate,' 'maintain,' and 'typical.'

3. Technical vocabulary, which are low-frequency words and words that usually occur in specific domains. Examples are 'precinct,' 'irksome,' and 'retinue,' which appear in texts rarely. More academic words take on an important role in higher grade level bands (Hiebert, Goodwin, & Cervetti, 2017).

MORPHOLOGICAL AWARENESS

- Attention to morphology improves students' ability to solve unknown words.
- Less frequent words, which are more academic in nature, play an important role in texts in higher grades.

In the early grades, high-frequency words provide an important base for early literacy development. However, attention to morphological awareness is increasingly important in the third and fourth grades (Goodwin, Lipsky, & Ahn, 2012). As texts become more complex, up to 60–80 percent of words encountered in texts from third grade or later, are morphologically complex derived words, the meanings of which can often be determined from analysis of component morphemes and context. For example, the word 'improve' can be considered a word family and can be identified in the words 'improved,' 'improvements,' 'improves,' and 'improving' (Hiebert, Goodwin, & Cervetti, 2017). Content-area reading is particularly dense in words of Latin or Greek origin. These words involve multiple affixes with roots that cannot stand alone, as in the examples of 'eruption,' 'credible,' and 'taxonomy' (Goodwin, Lipsky, & Ahn, (2012).

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TEXT TYPES (PAIRED OR IN THREES) FOR SUSTAINED READING

- Text types have different purposes, structures, and text features.
- Key vocabulary, syntax, and discourse registers within different text types build the student's strategies for reading texts that have different purposes.
- For some readers, informational texts may be more engaging than narrative texts.

The pairs of text types, linked to a topic may be one narrative book, one informational book such as an information report, and if there is a third book, an argument or persuasive text. Each text type has semantics, syntax, linguistic features, text structures, and rhetorical devices linked to the specific discipline (Moje, 2007).

For example, in a narrative about wild weather, there are characters, plot, setting, figurative language and sayings, sensing and relating verbs, and other language features of the discipline. In an informational report about the weather and cloud cover, a fifth grader read 'The presence of cumulonimbus clouds suggests there is a thunderstorm ahead' (based on Parenti, 2018).

Informational texts contain less familiar and more technical vocabulary and content than other genres (e.g. narratives, predictable books, poetry). They have unique text structures and use graphical literacy (Roberts, Brugar, Norman, 2015) such as body text, labels, captions, headings, diagrams, and text boxes. There may be areas of text that are difficult to comprehend – content or segments of language that will likely require discussion to clearly communicate meaning to students. All of these informational text features can be more difficult for both students and teachers to navigate, compared to other genres (Hoffman, Collins, & Schickedanz, 2015).

The reading strategies for comprehending academic language in narrative, informational reports, and persuasive texts are different. Reading persuasive texts with an argument structure has been the focus of recent intervention studies, and findings indicate that when provided with effective instruction, students K–5 are capable of engaging in argumentation (Lee, 2017). This emerging research, partly spurred by the Common Core State Standards' (CCSS) focus on literacy and science, indicates that students' ability to read and construct arguments is pronounced in particular conditions (Lee, 2017). Students comprehend and construct arguments when they understand they have agency, when they engage with controversial or real-life issues they can relate to, when they learn to take different perspectives through role-plays, when tasks or topics tap into students' interests or questions, and when the audience is made clear to students.

It is difficult to predict where students will struggle with the text or misinterpret an author's intent without some understanding of academic language and perspective taking (LaRusso, et.al., 2016). Texts encountered in history are inherently perspectival, and science texts demand following extended lines of reasoning explained verbally. Teachers' sensitivity to these challenges will improve content-area learning as well as literacy outcomes.

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COMPREHENSION

- Comprehension involves attention to academic language, perspective taking, and complex reasoning.
- A focus on discussion of metacognition and metalanguage to describe reading process and text features.

Reading comprehension in Grades 3–5 demands high-interest, meaningful texts about issues students can relate to and care about. Comprehension at this stage is dependent on abilities in three domains that go well beyond decoding and oral comprehension: academic language; perspective taking; complex reasoning (LaRusso, et.al., 2016). These are important in literacy-heavy content areas (history and science, as well as English Language Arts). Students may struggle with comprehension of a text and misinterpret an author's intent without some understanding of the academic language in different text types, and if they are not aware that authors write from differing viewpoints.

Complex reasoning involves metacognition, which is the ability to observe, problematize, and communicate one's own learning and thought processes through an active choice of reading comprehension strategies (Palincsar & Brown, 1984). Important comprehension strategies include literal comprehension as well as reading between the lines, reading beyond the lines, and making text-to-text-links, text-to-self-links, and text-to world-links (Keane & Zimmermann, 1997).

Metacognition involves students learning to ask questions about the text and the reading process, to survey, adjust, and communicate their reading comprehension strategies as well as using a metalanguage to talk about narratives and informational texts and their interpretations (Varga, 2017). Metalanguage is using language to describe how texts work, where the reader identifies the text as a construction by an author. It also describes the interaction between the text and the reader, where the reader reflects upon the reading process used to comprehend the text.

READING VOLUME

- Reading volume is important for comprehension.
- The ability to recognize words accurately and rapidly, and to group words in phrases is important for meaningful reading.

There are strong correlational studies indicating that reading volume has a strong positive relation with overall achievement in reading, dubbed the Matthew Effect by Stanovich (1986). There is strong evidence that students who read early and more often in turn become more proficient readers and thereby read more often, hence the reference to Matthew 25:29 and the maxim 'the rich get richer and the poor get poorer.'

In Grades 3–5, meaningful texts and discussions are especially important. Book groups, literature circles, using essential questions as organizers for the discussions, reading on a theme or unit of study can build reading volume. For instance, the essential question, 'What are the qualities you look for in a terrific story?' can spark interesting conversations across genres and titles (Fisher & Frey, 2018).

SUMMARY

The framework of well-designed texts can have three major factors: instructional design, engaging qualities, and accessibility (Sailors, Hoffman, & Condon, 2009). Texts with strong instructional design features for beginning readers provide for repeated exposure to high-frequency words that lead to automaticity on word recognition. Later stages of texts build on the academic vocabulary appropriate to topics. Another underlying instructional design principle is repeated exposure to common word families or rimes that build developmentally from common letter–sound relationships to the less common, less regular, and more complex. In later stages, morphological awareness encourages students to problem-solve new vocabulary and meanings.

In texts throughout all stages, the content, language, and design all need to include meaningful, engaging qualities. The content has to do with what the author has to say and stimulates the reader to think about issues and may evoke strong emotions. The language needs to be clear and the vocabulary appropriate and, where possible, enjoyable to read. The design of the text, according to Sailors, Hoffman, & Condon (2009), needs to be aesthetically pleasing in terms of layout format and the use of line, color, shape, and texture. The design extends and supports the reader in comprehending the story or the information in the book. Leveled texts with strong instructional design features can be highly engaging and accessible.

In the very early stages of literacy 'constrained' skills are readily teachable skills such as phonics, word recognition, and reading fluency. But as Snow & Matthews (2016) state, as students grow older, they need to understand words rarely encountered in spoken language and to integrate new information they encounter with relevant background information. Vocabulary and background knowledge are examples of 'unconstrained' skills – large domains of knowledge acquired gradually through experience. Unconstrained skills are particularly important for students' long-term literacy success (that is, success in outcomes measured after third grade).

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