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The faculty of language stands at the center of our conception of mankind: speech makes us human and literacy makes us civilized.
David Olson, *Harvard Review of Education*, 1977, p.257.

This simple statement alludes to the important relationship between speech and literacy that has come to intrigue and perplex many in recent years. Speech and literacy have been recognized as two complex processes that are conceptually and practically intertwined in the great tangle called "language" (Snow, 1983; Vellutino, 1977; Mattingly, 1972). Language, "a system of communication that employs spoken or written symbols" (Harris and Sipay, 1984, p. 247), is defined as a single phenomenon having receptive and expressive modes. The receptive (i.e., receiving) mode is listening and the expressive mode is speaking when the oral code is used; the receptive mode is reading and the expressive mode is writing when the graphic code is used (Athey, 1983).

Most children naturally and effortlessly develop oral language skills under the informal tutelage of parents who are uninformed but intuitive about language development. At age six, they generally begin formal instruction in the area of reading. In the normal course of development, the relationship between oral and written language is often overlooked. Nonetheless, it is generally expected that children bring to the

reading process not only "a wealth of experience, informal training in reasoning, an extensive grasp of the language and its uses, but also familiarity with books and writing implements as communication tools" (Athey, 1983, p. 200). In the optimal situation, all proceeds smoothly and children learn to read.

In some instances, however, the process does not progress smoothly. Reading problems arise and the whole process demands scrutiny. Considerable research has been conducted in an effort to understand reading difficulty. Until quite recently, reading problems were typically seen as distinct from speech problems. Reading specialists dealt with the one and speech/language pathologists dealt with the other. For the most part, speech/language professionals thought reading problems to be the result of visual perception difficulty and viewed the reading process as a curricular concern (Catts and Kamhi, 1986). It was primarily in the 1970's that reading researchers accorded serious interest to the relationship between reading and oral language (Vellutino, 1977). Interest in the relationship continues today and professionals in both fields are now exploring the connection.

Relationship between oral language and reading

If language is a central factor in reading difficulty, educators must better understand the relationship between written and oral language. They must learn to foster all facets of language development more efficiently and effectively if they are to remediate and prevent reading problems. Furthermore, if educators are concerned with maximizing the overall intellectual development of young students, they must explore the relationship between language and cognition (i.e., intellect) as well. Pflaum (1986) suggests that emphasis in education might shift from reading and writing to thinking if it were known

with certainty that cognition drove language learning. If it were believed that language drove cognition, however, emphasis might well be on specific language instruction.

While all of these complex relationships are being explored, the educational system continues. While goals and methodology may change over time, educators must use existing information to help those children currently having trouble. There are many children who begin reading instruction with seemingly adequate oral language and yet develop reading problems. There are numerous other children, however, who begin instruction without the requisite foundation. Regardless of an identified problem in oral language development, most children participate in a daily program of reading instruction. Although literacy is a worthy goal, is it a reasonable one for those children having significant language impairment? Some researchers suggest that language problems predicate reading problems (Stark, 1984; Levi, 1982; Jansky, 1972). Is reading instruction destined to be more than an exercise in frustration? Professionals involved with language impaired children, be they regular classroom teachers involved with minimally impaired students or speech/language specialists involved with more severely impaired students, must consider these questions if they hope to use educational time judiciously.

Researchers exploring the relationship between oral language and reading recognize the impact of oral language knowledge on reading. "Children who know more words understand text better" according to Nagy and Herman, who surveyed the literature (1987). Comprehension is related to schema (Athey, 1983). Menyuk (1983) suggests that the relationship of oral language to reading varies both with the nature of the reading task and with time. At later stages of

development, "as children become literate, the two systems become interactive, and children use each to support the other when they need to" (Goodman and Goodman, 1979, p. 150). Does this postulated interaction exist at early stages of reading development as well? Does reading impact positively on oral language development in the primary grades? For children who are significantly language impaired, oral language development is the primary concern. Can primary reading instruction impact positively on the oral language development of the language impaired child?

Until recently, it was generally accepted that listening, talking, reading and writing developed more or less sequentially, with oral language consistently preceding written language and with reception (i.e., comprehension) consistently preceding expression. Recent literature related to emerging literacy, however, suggests that this developmental progression is not necessarily fixed (Hall, 1987; Durkin, 1970). It has been suggested that writing precedes reading in some circumstances and that the precursors of real writing often provide the inspiration for reading. If writing can precede, or, at least, impact positively on reading, it is reasonable to suppose that reading can somehow impact positively on oral language. The directionality of the developmental sequence is no longer sacrosanct.

Language impairment

Before exploring the particular effect of reading instruction on the oral language development of the language impaired child, it is first necessary to characterize the language impaired child. Language disordered youngsters fall along a continuum. They will all, however, have marked deficits in oral language development despite normal hearing, normal nonverbal intelligence (Stark, 1984), and parents who speak

English as a first language.

Types of language impairment

Language disorders are typically categorized according to a three part classification system. Children exhibit difficulty in one or more of the areas: content, form, or use of language (Johnson and Reed, 1985). *Content* refers primarily to vocabulary and concept development, the semantic aspect of language. Disorders in the content area may be in the receptive and/or expressive mode. Children who don't follow a direction such as "stand behind Joe" because they have no understanding of the word "behind" are demonstrating some evidence of a receptive problem in the content area. Children who talk around a topic because they lack specific vocabulary (e.g., "I threw up last night in the, you know, where there's water") are demonstrating some evidence of an expressive problem in the content area. *Form* refers primarily to grammar, the morphological and syntactic elements of language. Both the child who omits word endings indicative of past tense or plurality (e.g., "My two dog runned away") and the child who confuses word order (e.g., "Where you is going?") show some evidence of difficulty with language form. Use of language, *pragmatics*, refers to the way language is used as a communicative tool. Children with words at their disposal who do not demonstrate understanding of the unspoken rules of conversation, (e.g., I speak, you listen, you respond to my comment while I listen...) show some evidence of a problem in the area of pragmatics. A child's language behavior is referenced to developmental norms.

Origins of impairment

Verifiable language disorders that appear superficially similar may stem from different sources. Causative factors are variable and often hard to pinpoint. While it is not difficult

to understand the language problem of a deaf youngster, it is often quite difficult to understand the language problem of a seemingly bright child having no hearing problem. Why is it, for example, that certain children cannot retrieve simple everyday words when trying to express themselves? Sometimes, one suspects that auditory perception problems (e.g., inability to notice the difference between "coat/code" upon hearing the words) have thwarted vocabulary development. Other times, one suspects that transitory and unnoticed hearing losses (the kinds that accompany colds and ear infections) have occurred at critical periods of language learning.

On occasion, one considers insufficient early stimulation or inadequate opportunities for practice (e.g., brothers and sisters speak for the child). On rare occasions, one even suspects over-stimulation. If the parents typically speak in long, convoluted sentences rather than in abbreviated, developmentally appropriate sentences when the child is young, the child may be incapable of handling the input (e.g., "You need to give Daddy a kiss now before he leaves for the meeting because you will be fast asleep in your snug little bed by the time he arrives home later this evening"). Regardless of the cause, the child arrives at age six missing many basic skills in oral language.

Reading and the language impaired child

Experience shows that despite oral language deficits, many language impaired children, during the early grades, progress in reading. That is, they learn to recognize and/or decode words and they participate in reading lessons. Menyuk and Flood (1981) suggest that "success in the first components ...does not necessarily predict success in later components" (p. 17), and that different reading materials

require different levels of oral language knowledge to be brought to conscious awareness" (p. 18).

Chall's theory of reading stages (1983), which distinguishes learning to read from reading to learn, seems to explain the language impaired child's early reading "success." Kamhi et al. (1985), however, found that many language impaired youngsters (aged 3-6 years) had "difficulty segmenting sentences and words into smaller units" (p. 50). This information suggests that even the decoding stage of reading should be difficult for many language impaired children. Perhaps success or failure at decoding can be explained somehow by the origin of the language problem or by the determination and expectation of the teacher. Perhaps, if Rumelhart's interactive theory is accurate (1985), language impaired youngsters learn to read because they take advantage of any feature available to them. Few children will exhibit a deficit in every conceivable dimension.

Despite all of this information, educators might consider delaying reading instruction if it is suspected that language impairment was related to a maturational lag. Satz et al. (1971), in a study of "specific developmental dyslexia" postulated and supported a theory of maturational deficit. Such a theory might be applicable to the language impaired youngster as well. Stark et al. (1984) in a follow-up study of young language impaired children found that those children developed language skills over time but seemed to acquire them "at a slower than normal rate" (p. 65). Although all children had had some form of language intervention, evaluation indicated that most maintained their language impaired status over time. Most also developed reading difficulty over time. Of the few younger, less impaired children who tested in the normal range eventually, half exhibited significant

reading difficulty. Thus, it would seem that maturational problem or not, early reading and language instruction is advisable. Given the limited amount of time available for education, early instruction is necessary if children are at least to achieve their potential. Early education is even more essential if one suspects neurological deficits. Neither the neurological hypothesis of Hynd and Hynd (1984), which postulates developmental abnormalties for dyslexics, nor any theory related to brain damage, eliminates the need for early intervention. As Geschwind (1972) suggested, recovery in cases of brain trauma is sometimes accounted for by the plasticity of the young brain. When "children have been known to make a much better recovery than adults with the same type of brain lesion" it is suggested that one part of the brain still has the capacity to take over the function of the damaged part (p. 83). In such instances, it is clear that early intervention is a must.

The discussion thus far has been quite theoretical. Given some of the deficit areas of language impaired children, however, it is possible to speculate more specifically about the impact of reading instruction on their oral language development. If the child has difficulty in the area of auditory perception, for example, it may be beneficial to present stimuli through a more "intact" modality (i.e., present material in the manner that the child most typically grasps). While the neurological process is not fully understood, it is known that the auditory and visual centers for receiving messages are in different spots of the brain. It is known, too, that a deaf child learns little about the world through the auditory (i.e., hearing) channel. If language impaired children have an auditory perception problem, it is possible that they also are incapable of using the auditory channel effectively. "Because most verbal communication takes place by auditory speech signals, a

child who is unable to attend to speech sounds or to differentiate speech sounds from the remainder of the auditory stimuli in the environment will probably experience difficulty learning to comprehend and in acquiring language as a communication system" (Chalfant and Scheffelin, 1969). In that case, the language impaired child would undoubtedly benefit from the visual input afforded by reading instruction.

While listening is generally an unconscious, natural process that is taken for granted, it is nonetheless quite complex. The "auditory cues are not discrete events well separated in time or frequency" (Mattingly, 1972, p. 136). Usually, the process of listening is made less complex by the redundancy of spoken language (e.g., "he" and "his" in the same sentence give similar informaton about gender of the subject) and by the inflectional and phrasing cues (i.e., stress and pauses) afforded by the speaker.

It must be recognized, however, that the cues that make language learning so natural for the majority of children may not be so functional for language impaired children. If they were, it would seem logical that these children would be learning language as easily as their peers. Mattingly (1972) points out that "in printed text, the symbols are discrete units" (p. 136). Furthermore, in the written form, words are static. With reading, language impaired youngsters have the opportunity to focus on a word, to refer back to it, and, in general, to set the pace. To the contrary, a word in conversation simply disappears into the proverbial thin air. Mann et al. (1984) studied normal and reading impaired third graders and found that poor readers appeared to have "a less effective means of retaining the words of sentences in working memory" on a sentence repetition task (p. 640). The study postulated that "ineffective phonetic representation [would...] give rise to

comprehension difficulties whenever language processing stresses working memory" and found that poor readers did less well than good readers on both the repetition task and the comprehension task (p. 639). If language impaired children experience similar difficulty with word memory, it is likely that many oral words will be missed. Without the child expecting the word, the word may simply fly by. In reading, attention can be redirected.

Once words become more obvious to the language impaired child, it is possible that metalinguistic awareness will grow. Mattingly (1972) suggests that "...sight words and the writing system are matters of convention" which "must be more or less deliberately learned..." and are never inaccessible to awareness in the way that much primary linguistic activity is (p. 142). Thus, if *-ing* or *-s* become apparent in written language, perhaps they will subsequently become more obvious in oral language, the primary linguistic activity, as well. The written cue may provide the stimulus necessary for critical language learning.

Many speak of the decontextualized nature of reading (i.e., the separation of word from experience). Reading in primary texts, however, is accompanied by many pictures and cannot be considered totally decontextualized. Language teachers recognize the importance of experiential learning and provide that type of instruction whenever possible. Written language accompanied by pictures can, however, provide reinforcement for a particularly established concept. While language impaired children are deficient in many areas, they usually have pockets of strength as well. It seems reasonable that these strengths should be encouraged. It may be that the printed word is the next level of experience that the impaired child needs for certain elements. Snow (1983) suggests that

while physical context is important, "historical context" (i.e., "experience with some event, place, word, or text, which can support ...current interpretation or reaction" p. 175) becomes important as well.

Additionally, reading can broaden the child's experience both inside and outside the classroom. It is obvious that texts can bring experiences to children which they would otherwise miss. It is equally obvious that the written word is crucial to experiences outside of school. How can a "thank you note" be understood, for example, without the written word? Even a grocery visit has more meaning when a child is familiar with written symbols (labels, signs, etc.). "New and different experiences laden with vocabulary, challenge children to think, talk...about their impressions" (Stewig, 1980, p.52).

Carroll (1977) considers the interrelatedness of cognition, language and reading and suggests that development in one area is circumscribed by development in the preceding area. Primary reading materials designed to promote simultaneous development of these related areas would integrate phonics and meaning and thereby impact positively on oral language development. Meaning, after all, is a basic shared element of reading and oral language (Hall and Ramig, 1978).

Nagy and Herman (1987) reviewed studies of vocabulary development in the normal child and concluded that direct instruction alone cannot account for the tremendous growth in vocabulary that the normal child experiences. They noted further that each exposure to a word enhances understanding and cautioned that "one should not underestimate the value of any meaningful encounter with a word, even if the information gained from that one encounter is relatively small" (p. 32). If a normally developing child needs many encoun-

ters with a word to establish deep understanding, how many more encounters must be needed by the language impaired child with a content problem?

Miller and Gildea (1987) suggest that "mastering the mechanics of uttering and recognizing a word and mastering the concept that it expresses are separate learning processes" (p. 94). Carey (1978), whose research inspired their conclusion, postulated that the first part of the process happens quickly and efficiently while the second part, which requires restructuring of the cognitive domain, happens slowly. Miller and Gildea (1987) suggested that arbitrary drill often presents words at a time when students have no desire to learn them. They asserted that reading provided both a natural opportunity for word exposure and a natural opportunity for the teacher to present information at a critical time. In normal development of oral language, children must use words as well as hear them. Snow (1983) found that at the level of sentence production planning ...children get better partly as a product of practice with talking (p. 183). Perhaps reading words aloud in grammatically correct sentences is analogous to using the words in conversation. It is possible that reading material — and the teacher — provide the scaffolding (Bruner, 1978) necessary for language development.

"Written language tends to be more complex than speech and children who read benefit from a range of linguistic inputs that are unavailable to the child who has no access to a book" (Chomsky, 1980, p. 57). In a study of normally developing children who ranged in age from 6-12 years, Chomsky observed that the development of several higher order elements of syntax correlated with measures of reading exposure and material complexity. Both children who read to themselves and children who were read to showed gains.

Chomsky (1972) concluded that children should be "permitted access to books well above [their] level to get out of them what [they] may" (p. 33). If challenging language materials stimulate the syntactic development of normally developing children, they might also stimulate the syntactic development of the language impaired child. Even the simplest text might provide challenge to the child with a syntactic deficit. When one considers Chall's theory (1983) that challenge is necessary for development, the withholding of written material could be considered an impediment to the achievement of linguistic potential.

Schuele and Van Kleeck (1987) suggest that language awareness in language impaired youngsters might be deficient due to lack of word play opportunities. They feel that caregivers may "simplify language demands and experiences ...while emphasizing the use of oral language to communicate" (p. 40). "The language-disordered child's exposure to literacy also needs to be considered to ensure that the child is gaining an understanding of the functions and conventions of written language" (Schuele and Van Kleeck, 1987, p. 34). Gillam and Johnston (1985), in a controlled study of normal and language impaired preschoolers, found that language impaired children trail their peers in the development of general literacy before formal instruction even begins. If language impaired children are denied basic language experiences, they simply add one disadvantage to another. Gillam and Johnston's study of print awareness, which showed that oral capability (i.e., naming an item) was "not a prerequisite for success on a print-to-product match for the same item" (p. 525), strongly suggests that language impaired youngsters can benefit from such exposure to the written word.

As most children between the ages of 6-7 years are learn-

ing to read and write, the language impaired youngster wishes to learn as well. Because of strong motivation, the language impaired child may learn more of both written (and subsequently oral) language than anyone expects. Furthermore, if the impaired child is denied the opportunity and thus, removed further from the peer group, the social consequences may be disastrous.

Language impaired children walk a tightrope. Despite their deficits, they seem in some ways to be average children. If their differences become more noticeable (i.e., they are not expected to read and write) and they, as a consequence, are excluded from social interaction with peers, their deficits may compound themselves. Missed experiences, coupled with the lowered expectations of disheartened parents, only add to the problem.

Beneficial types of reading instruction

While speculation and observation suggest that reading instruction benefits the oral language development of the language impaired child, it is difficult to determine the type of instruction that stimulates such growth most effectively. A teacher's philosophy must enter into the choice of approach. A teacher who sincerely believes that cognition drives language learning (as mentioned earlier) may want to incorporate elements of a top-down approach. Many educators see value in the experience story strategy (Hall and Ramig, 1978; Lamoreaux and Lee, 1943). Such an approach provides motivation and allows for "normal" language learning with the help of a visual aid. The teacher can easily provide expansion of utterances (as outlined in Snow, 1983) if the experience story is done as a group project. The child's particular skills must guide the choice of approach as well, however. Popp (1978), in an article about reading materials and the high-risk

child, suggests that the system of instruction should capitalize on student strengths. The child with strong visual skills might do well with a bottom-up approach. Ability to memorize sight words might be the one strength (and first success) that a child has.

Montessori's method, developed and implemented years ago in the Children's Houses of Italy, might offer an integrated approach that would work well with the language impaired child. Montessori encouraged applied experience and natural discovery. She stressed sensory learning and believed that "touching the letters and looking at them at the same time, fixe[d] the image more quickly through the cooperation of the senses" (Montessori, 1974, p. 266). The teacher's responsibility was to observe the child and to adjust the environment to maximize the child's potential learning.

Given the severity and complexity of a language disability, it is probably wise for the teacher to follow an eclectic approach. A child with multiple problems may benefit from a variety of strategies. As long as the teacher consistently supports the learning process and stays alert to successes and failures, the language impaired child will benefit.

Conclusions

There is little consensus to date amongst professionals regarding optimal intervention strategies for those youngsters having difficulty in absorbing language from the oral environment (Stark, 1984). This investigation, however, suggests that reading instruction, guided by a knowledgeable and sensitive teacher, may well be one means of complementing and facilitating oral language learning for the language impaired child. Primary reading instruction may afford the language impaired child an opportunity for broadening and deepening

knowledge of vocabulary and syntax. The static, simple nature of the written word, coupled with its potential for visual and kinesthetic input, may afford the language impaired child the opportunity to focus on the critical elements of language to be learned. The need for empirical research in this area is great. If professionals are to meet the special needs of language impaired children, the complex relationship between reading and oral language must be explored in depth and understood more fully.

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References

Athey, I. (1983, March-April). Language development factors related to reading development. *Journal of Educational Research, 76,* 197-203.

Bruner, J. (1978). Learning how to do things with words. In J. Bruner & A. Garton (Eds.), *Human growth and development, Wolfson College lectures,* 62-84. Oxford: Clarendon Press.

Carey, S. (1978). The child as word learner. In M. Halle, J. Bresnan & G. Miller (Eds.), *Linguistic theory and psychological reality,* 264-293. Cambridge, MA: MIT Press.

Carroll, J. (1977). Developmental parameters of reading comprehension. In J. T. Guthrie (Ed.), *Cognition, curriculum, and comprehesion,* 1-15. Newark, DE: International Reading Association.

Catts, H. & Kamhi, A. (1986). The linguistic basis of reading disorders: Implications for the speech-language pathologist. *Language, speech, and hearing services in schools, 17,* 329-341.

Chalfant, J., & Scheffelin, M. (1969). *Ninds monograph-9, central processing dysfunctions in children: A review of research.* Bethesda, MD: U.S. Dept. of Health, Education & Welfare.

Chall, J. (1983). *Stages of reading development.* New York: McGraw-Hill.

Chomsky, C. (1980). Developing facility with language structure. In G.S. Pinnell (Ed.), *Discovering language with children,* 56-59. Urbana, IL: National Council of Teachers of English.

Chomsky, C. (1972). Stages in language development and reading exposure. *Harvard Educational Review, 42* , 1-33.

Durkin, D. (1970). A language arts program for pre-first-grade children: Two-year achievement report. *Reading Research Quarterly, 5* , 534-565.

Geschwind, N. (1972). Language and the brain. *Scientific American, 226*, 76-83.

Gillam, R., & Johnston, J. (1985). Development of print awareness in language-disordered preschoolers. *Journal of Speech and Hearing Research, 28*, 521-526.

Goodman, K., & Goodman, Y. (1979). Learning to read is natural. In L. Resnick & P. Weaver (Eds.), *Theory and practice of early reading* , 137-154. Hillsdale, NJ: Erlbaum.

Hall, N. (1987). *The emergence of literacy.* Portsmouth, NH: Heinemann.

Hall, M., & Ramig, C. (1978). *Linguistic foundations for reading.* Columbus, OH: Merrill.

Harris, A., & Sipay, E. (1984). *How to increase reading ability, 8.* New York: Longman.

Hynd, G. & Hynd, L. (1984). Dyslexia: Neuroanatomical/neurolinguistic perspectives. *Reading Research Quarterly, 19*, 482-498.

Jansky, J., & deHirsch, K. (1972). *Preventing reading failure.* New York: Harper & Row.

Johnston, J., & Reed, S. (1985). *The effect of language development on the acquisition of reading skills in the elementary mainstreamed hearing impaired student.* Paper presented at the annual meeting of the Southwestern Regional Conference of the IRA.

Kahmi, A., Lee, R., & Nelson, L. (1985, May). Word, syllable, & sound awareness in language disordered children. *Journal of Speech and Hearing Disorders, 50*, 207-212.

Lamoreaux, L., & Lee, D. (1943). *Learning to read through experience.* New York: Appleton-Century.

Levi, G., Capozzi, F., Fabrizi, A. & Sechi, E. (1982). Language disorders and prognosis for reading disabilities in developmental ages. *Perceptual and Motor Skills, 54*, 1119-1122.

Mann, V., Shankweiler, D., & Smith, S. (1984). Phonetic representation and reading. *Journal of Child Language, 11*, 627-643.

Mattingly, I. (1972). Reading, the linguistic process, and linguistic awareness. In J.F. Kavanagh & I.G. Mattingly (Eds.), *Language by ear and by eye*, 133-147. Cambridge, MA: M.I.T. Press.

Menyuk, P. (1983). Language development and reading. In T. Gallagher & C. Prutting (Eds.), *Pragmatic assessment and intervention issues in language*, 151-170. San Diego, CA: College Hill.

Menyuk, P., & Flood, J. (1981). Linguistic competence, reading, writing problems and remediation. *Bulletin of the Orton Society, 31*, 13-28.

Miller, G., & Gildea, P. (1987). How children learn words. *Scientific American, 257*, 94-99.

Montessori, M. (1974). *The Montessori method.* New York: Schocken.

Nagy, W., & Herman, P. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. In M. McKeown & M.

Curtis (Eds.), *The nature of vocabulary acquisition*, 19-35. Hillsdale, NJ: Erlbaum.

Olson, D. (1977). From utterance to text: The bias of language in speech and writing. *Harvard Educational Review, 47*, 257-281.

Pflaum, S. (1986). *The development of language and literacy in young children.* Columbus, OH: Merrill.

Popp, H. (1978). Selecting initial reading instruction for high-risk children: A theoretical approach. *Bulletin of the Orton Society, 28*, 15-42.

Rumelhart, D. (1985). Toward an interactive model of reading. In H. Singer & R. Ruddell (Eds.), *Theoretical models and processes of reading, 3*, 722-751. Newark, DE: International Reading Association.

Satz, P., Rardin, D., & Ross, J. (1971). An evaluation of a theory of specific developmental dyslexia. *Child Development, 42*, 2009-2021.

Schuele, C.M., & Van Kleeck, A. (1987). Precursors to literacy: Assessment and intervention. *Topics in Language Disorders, 7*, 32-44.

Snow, C. (1983). Literacy and language: Relationships during the preschool years. *Harvard Educational Review, 53*, 165-189.

Stark, R., Berstein, L., Condino, R., Bender, M., Tallal, P., & Catts, H. (1984). Four-year follow-up study of language impaired children. *Annals of Dyslexia, 34,* 49-68.

Stewig, J.W. (1980). Planning environments to promote language growth. In G.S. Pinnell (Ed.), *Discovering language with children*, 52-55. Urbana, IL: National Council of Teachers of English.

Vellutino, F. (1977). Alternative conceptualizations of dyslexia. *Harvard Educational Review, 47* , 334-354.

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"Thanks to the person who taught me to read,
I lived wherever I wanted
and I was whoever I wanted to be.
I learned a new way of being happy."

from an address by Janet Emig, outgoing president of the National Council of Teachers of English