Systemic Vocabulary Development: Research and Implications for School Leaders, Teachers, and Parents

Edward Joyner, Ed.D**.**
Iline Tracey, Ed.D
Ivelise Velazquez

Verbal ability, the ability to receive and transmit information through words, is the most potent intelligence indicator. It is a significant factor in both the transmission and reception of academic knowledge because teachers deliver subject matter content through general vocabulary and their courses' specialized vocabulary. Students cannot master any academic subject unless they can decode and comprehend the range of words that constitute the specific language within the school's and district's curriculum. Science, mathematics, literature, social studies, physical education, art, drama, and music all contain **high-frequency** words that do not occur in commonly written and spoken language. Such words act as hurdles to comprehension for students who do not understand them. A teachers' challenge is to build the academic vocabulary or background knowledge that allows students to clear these hurdles to comprehend receptive and expressive course content text.

Schools must establish and maintain practices to ensure that students develop a broad vocabulary to decipher the written and oral communication used to teach them the school's curriculum, skills, and content. Moreover, what educators must do should be based on sound research and common sense, and it should be done consistently across grade levels and subject areas.

Schools with a high concentration of poor students and students for whom English is a second language (who also may be poor) have a more difficult challenge. Children from most middle-class families enter school with an advantage that maximizes their chances of reading, writing, and speaking well across the content areas. Children who come from a school and community culture where English is not

the first language or where a dialectical variation of English is the dominant language can handle the oral transactions within their sub-culture and be exceptionally fluent, yet experience some difficulty in a dominant or standard language environment. Since much of the intellectual discourse in any modern society is in standard language, mastery of its words and rules is crucial. ***The challenge for educators who work in poor communities is to teach this language in every content area without demeaning the student or suggesting that her first language is inferior rather than different.***

What then must we do to help these students develop the ability to move in and out of multiple language contexts? How can we help them develop the standard vocabulary that is the currency of intellectual exchange in various sectors of society and that is so essential to academic success? Finally, how can we help students decide how to take what is essential from both languages to develop communication and establish their voice in the shifting social contexts we encounter in school and day-to-day living.

We must investigate the research in this area and incorporate insights from the personal experiences of successful individuals who come from low-income, different language backgrounds. We also believe that principals and teachers must lead the language development process in their schools and that relevant central office staff must provide consistent support. Finally, this effort must also engage parents and students to create the pervasive press for excellence needed to bring each child to high-level proficiency in the language arts.

Our own experiences have taught us that human beings tend to develop an emotional attachment to their first language. This attachment holds whether the first language is dialectical or one other than English. One comprehends the world through the five senses and represents this understanding through language. We construct a multimedia and multisensory dictionary in our head that stores the words, phrases, and images that we encounter as we grow and develop (Pinker, 1997). We develop certainty about labeling people, places, and things based on our exposure to the language first brought to us by primary caregivers.

We expand this dictionary as we interact with secondary caregivers and others we have contact with directly or through the media. Over time, we develop a relatively independent capacity to expand this dictionary with entries of our choosing. A degree of comfort and familiarity (with our language) is achieved that allows for the verbal interaction needed to transmit and receive the information that ensures individual and group functioning. This comfort level breaks down when we move into a different language context. All of a sudden, we hear unfamiliar words and phrases. We lose our voice and our ability to decipher the sounds representing the same things that we identified with certainty in our first language. We cannot regain these precious gifts until we have mastered the written and oral language representing the new communication system that surrounds us.

The act of learning another language in addition to one's original language is intrusive. If this process conveys that the student's first language is inferior, students may even resist. Learning dual languages is challenging for younger children. However, it can be devastating for older ones who have constructed a more elaborated inner cognitive world that labels and describes everything they know using terms from their first language. When we introduce another language, we ask them to be bi-cognitive and make nearly instantaneous translations. They go back and forth from the first to the second language in the various situations they encounter in the classroom and other social settings. When we reject children's first language, we are, in effect, rejecting them.

Dr. Joyner experienced a fifth-grade classroom in Louisa, Puerto Rico, which made him acutely aware of this challenge. He was in a science classroom in a cooperative learning group with a group of fifth-grade boys. The teacher gave him and the students a black rubber bag filled with items to identify using the tactile sense. He felt what he believed to be a toy car, water, a pencil, and a round object that he believed to be a lid from a bottle. While he was right on all accounts, he could not demonstrate his "genius" because he did not speak Spanish. Dr. Joyner was the lowest performer in the class and felt humbled when one of his tablemates, Hector, helped him name the objects correctly in Spanish. Hector's English was much better than Dr. Joyner's Spanish. Moreover, according to Dr. Joyner, Hector was very sensitive to his

limited Spanish proficiency and delighted in teaching him. This fifth grader accepted him unconditionally and taught him with compassion and an excellent desk-side manner.

Children and adults encounter similar problems when they speak a dialectical variation of a standard language. If authority figures are not sensitive, they send the message that labels the language and its speaker as inferior.

Joyner describes his Southern dialect as follows:

"My first language was Black, Southern, North Carolina dialect. I knew the terms *tata*, *nana*, *SMO, chirrens,* and *yawl* before I was three. My primary grade teachers taught me their standard equivalents quickly without ever making me feel ashamed of the language spoken in my home. I learned the terms *potato*, *banana*, *some more*, *children,* and *you all* in short order. I also learned that I should not pluralize fish and sheep by adding an "s." I made this shift from dialect to standard language in a seemingly effortless manner. I owe a debt to Miss McPherson, Miss Jordan, Miss Ligon, and Mrs. Fraiser for teaching me with tender, loving care. My principal, Mr. Mebane, set the tone by insisting that we read widely and become linguistically versatile. He could speak French, German, English, and Black dialect fluently. My school experiences were filled with rich oral language, books, books, and "mo"—more books. The research about vocabulary acquisition is consistent with my experiences."

We know that in the world of high-level (and low level for that matter) intellectual discourse, a rich and varied vocabulary empowers the learner. Words are the building blocks of language and the currency of spoken and written communication. For poor children, exceptional language facility using the standard form is essential for succeeding in school and life. Social skills, high self-worth, emotional control, a moral compass, and a solid work ethic are others. This reality suggests a compelling reason for schools to invest resources in developing strategies to ensure students receive multiple opportunities to develop a broad vocabulary. In

addition, there is a body of research that can help schools make sound decisions regarding vocabulary instruction.

Becker (1977) observed that the primary difficulty with sustaining early reading gains is the lack of adequate vocabulary that meets the broad academic demands that begin in the upper-elementary academic grades and continue through schooling. He also noted that the primary cause of disadvantaged students' academic failure in grades 3 through 12 was vocabulary size. Stanovich (1986) attributed school failure to the development of phonological awareness, reading acquisition, and vocabulary growth. We know that students learn as many as 3,000 words per year or eight words per day. Some students, however, learn as few as one or two words daily. Even as methodological improvements in vocabulary research have occurred, one unequivocal finding has remained: Poor achieving students know alarmingly fewer words than students with rich vocabularies. For example, Beck and McKeown (1991) discussed a study conducted by Smith (1941) that reported that high-achieving high school seniors knew four times as many words as their low-achieving peers. Smith also reported that high-achieving third graders had vocabularies about equal to low-achieving twelfth graders.

In 1982, Graves, Brunetti, and Slater (cited in Graves, 1986) reported a study on differences in the reading vocabularies of middle-class and disadvantaged first graders. In a domain of 5,044 words, disadvantaged first graders knew approximately 1,800 words, whereas the middle-class students knew approximately 2,700 words. Using a larger domain of words (19,050), Graves and Slater (cited in Graves, 1986) reported that disadvantaged first graders knew about 2,900 words and middle-class first graders approximately 5,800 words.

We can reasonably assume that the vocabulary gap is a significant factor in the achievement gap. Thus, any school program should aggressively bring poor children to vocabulary development levels equivalent to their middle-class peers. Benjamin Mayes, the great Morehouse educator and mentor to Martin Luther King, Jr., said that "He who is born behind in the race of life must run faster."

5

Qualities of Effective Vocabulary Instruction

Vocabulary instruction must provide adequate definitions and illustrations of how words are used in natural-sounding contexts (Nagy 1988). Based on research surveys (Stahl 1986; Graves and Prenn 1986; Carr and Wixson 1986), three strategies have proven to improve vocabulary growth. They are **integration**, **repetition**, and **meaningful use**. The following explanation of these three terms is taken from Nagy (1986).

Integration is the first property of powerful reading and vocabulary instruction. To execute this strategy, teachers must understand that instructed words should be integrated with what students already know. This strategy is an outgrowth of schema theory, which is based on at least two essential principles:

- Knowledge is structured—it is not just a list of independent and unrelated facts but also sets of relationships between facts.

- We understand new information based on what we already know.

This principle must be applied whenever we are teaching new terms and concepts. For example, when Joyner taught high school history in the seventies, I used the description of a vampire to help students understand the concept of colonialism. They all knew Dracula and Blacula. Moreover, He frequently encounters students who are in their early sixties who still remember that particular class session. Bela Lugosi and William Marshall would have been proud.

Repetition in word knowledge is related to the verbal efficiency hypothesis propagated by Perfitti and Lesgold (1979), which suggests that:

- A reader has only limited processing capacity for tasks that require conscious attention.

- If a reader can decode well, identifying words in the text proceeds automatically so that most of the attention can be given to comprehension. *Thus reading with understanding depends on automatic recognition of words in a text.*

Limited word knowledge can have the same effect on comprehension as poor decoding skills. Therefore, teachers and parents must teach vocabulary using methods to ensure that readers know what a particular word means and have sufficient practice to quickly and easily recall its meaning during reading.

Meaningful use is the third principle of vocabulary instruction and requires the student's active involvement with multiple opportunities to process the information taught. Instruction should provide an opportunity for students to think about a word and the meaning or utility that a particular word has for them.

The three of us used a practical rationale when we taught elementary, middle, high school, and college students when a word or concept appeared to have no immediate personal meaning and no apparent use for them. We suggested that they needed to put words in their mental dictionaries as a verbal defense system. We reminded them of the power of articulate language to discredit any stereotype that others had about their intellectual ability. For example, Malcolm X (El Hajj Malik El Shabazz) said: " Education is our passport to the future, for tomorrow belongs to those who prepare for it today." This phrase is extracted from a speech that Malcolm made (in standard language) to Mississippi youth in the sixties. Most of the great speeches and writings made by people of color were given in standard language, using King's "I Have a Dream" speech as one of the most powerful examples. However, these speeches have a rhythm and a flavor that is uniquely African-American. On the other hand, Dr. King could not have delivered the "I Have a Dream" speech on the Washington mall on that eventful day in Ebonics—hence, the need for a bridge from dialect to the standard language.

Many educators believe that students can learn new words by reading widely. They will learn these words without assistance through context. This belief is misleading unless one considers that the student cannot infer the meaning of a new word in context unless they understand the context. Beimer (1999) has suggested that the reader must understand at least ninety-five percent of the words in a passage to infer the meanings of unfamiliar words. So, while we can facilitate vocabulary

development through extensive reading, it is crucial to match children with books at an appropriate level of difficulty.

Studies of reading have also found consistently, from the 1920s to the present, that a well-developed vocabulary is the most critical variable in reading comprehension (Chall & Stahl, 1985; Thorndike, 1973- 1974). Indeed, word-meaning scores are positively correlated with reading comprehension scores that a reading vocabulary test (word meaning) may be substituted for a paragraph-meaning test. Research on readability has also found, over the past 60 years, that vocabulary difficulty (as measured either by word familiarity, word frequency, word length in syllables or letters, the abstractness of words, or difficulty of concepts) has the highest correlation with comprehension difficulty more than syntax and other structural and organization factors (Chall, 1958; Dale & Chall, in press; Klare, 1963). (McKeown & Curtis 1987, p. 11)

We all learn most of our unfamiliar root words in the context of written and spoken language when we ask for their meanings or look them up in a dictionary. Thus, students must learn new words intentionally. Their meanings are more likely to be retained in their mental dictionaries if they are integrated with what they already know, if used and encountered frequently, and have meaningful use for the individual student.

Implications for Building Leaders and Teachers

Low achieving schools will not move to higher levels of achievement without deliberate efforts by principals to support effective instructional practices and establish language development in the content areas across the curriculum. For example, in vocabulary development, principals must work with teachers to establish research-based practices in all classrooms that facilitate word acquisition. They must procure the resources and set aside the time for teachers to make individual and group decisions about this worthy goal. Principals must monitor classrooms to ensure that everyone is working effectively. Furthermore, one of the most significant determinants of instructional excellence is the quality of student work. When students are doing

well on challenging work related to high-quality assessments, one can be reasonably assured that they are receiving adequate instruction. School leaders must also impress upon students that they are personally responsible for certain aspects of their learning, and principals should keep parents informed of important academic initiatives.

Principals and teachers should work together to establish classroom standards for teaching vocabulary in every subject area. Such practices could include:

1. Direct instruction of unfamiliar words in all lessons in all content areas

2. Systematic teaching of essential prefixes and suffixes

3. Direct teaching of grade-level vocabulary lists with strategies to integrate the words with what students already know

4. Provisions for repeated, meaningful use of the word (s) through writing and speaking in and out of the classroom

5. The development of classroom games and school-wide contests to facilitate the love of words, and

6. Provision of staff and students opportunities to invent ways that language development can become a goal for all students.

There are probably many more ways that schools can get students hooked on language through systematic word study. This informal paper will hopefully provide school leaders and teachers with an opportunity to mobilize students, staff, and parents to pursue this worthy goal.

References

Abraham, W. (1956). <u>A New Look at Reading: A Guide to the Language Arts.</u> Boston: P. Sargent.

Alderman, M. K. (1999). <u>The motivation for Achievement: Possibilities for Teaching and Learning.</u> Mahwah, NJ: Lawrence Erlbaum Associates.

Anderson, I. H., & Dearborn, W. F. (1952). <u>The Psychology of Teaching Reading.</u> New York: Ronald Press Co.

Anisfeld, M. (1984). <u>Language Development from Birth to Three.</u> Hillsdale, NJ: Erlbaum.

Barr, R. (1996). <u>Handbook of Reading Research.</u> Mahwah, NJ: Lawrence Erlbaum Associates.

Beimer, (1999) <u>Language and Reading Success.</u> Brookline Books.

Carver, R. P. (2000). <u>The Causes of High and Low Reading Achievement.</u> Mahwah, NJ: Lawrence Erlbaum Associates.

Chan, L. K. (1994). Relationship of Motivation, Strategic Learning, and Reading Achievement in Grades 5, 7, and 9. <u>Journal of Experimental Education,</u> <u>62</u>(4), 319-339.

Cornoldi, C., & Oakhill, J. (Eds.). (1996). <u>Reading Comprehension Difficulties: Processes and Intervention</u>. Mahwah, NJ: Lawrence Erlbaum Associates.

Dechant, E. D. (Ed.). (1991). <u>Understanding and Teaching Reading: An Interactive Model</u>. Hillsdale, NJ: Lawrence Erlbaum Associates.

Foorman, B. R. (1998). The Role of Instruction in Learning to Read: Preventing Reading Failure in At-Risk Children. <u>Journal of Educational Psychology, 90</u>(1), 37-55.

Halle, T. G., Kurtz-Costes, B., & Mahoney, J. L. (1997). Family Influences on School Achievement in Low-Income, African American Children. <u>Journal of Educational Psychology, 89</u>(3), 527-537.

Henry, N. B. (Ed.). (1961). <u>Development in and through Reading</u>. Chicago: The University of Chicago Press.

Kingen, S. (2000). <u>Teaching Language Arts in Middle Schools: Connecting and Communicating.</u> Mahwah, NJ: Lawrence Erlbaum Associates.

(1994). <u>Reading, Language, and Literacy: Instruction for the Twenty-First Century.</u> Hillsdale, NJ: Lawrence Erlbaum Associates.

Eckman, F. R., Highland, D., Lee, P. W., Mileham, J., & Weber, R. R. (Eds.). (1995). <u>Second Language Acquisition: Theory and Pedagogy</u>. Mahwah, NJ: Lawrence Erlbaum Associates.

McKeown, M. G., & Curtis, M. E. (Eds.). (1987). <u>The Nature of Vocabulary Acquisition</u>. Hillsdale, NJ: Lawrence Erlbaum Associates.

McLaughlin, B. (1984). <u>Second-Language Acquisition in Childhood.</u> (2nd ed.) (Vol. 1). Hillsdale, NJ: Lawrence Erlbaum Associates.

Orasanu, J. (1986). <u>Reading Comprehension: From Research to Practice.</u> Hillsdale, NJ: Lawrence Erlbaum Associates.

Pellegrini, A. D., & Bjorklund, D. F. (1998). <u>Applied Child Study: A Developmental Approach.</u> (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Pinker, S. (1999). <u>Words and Rules: The Ingredients of Language.</u> New York: Basic Books.

Ryan, J. (1992). <u>International Handbook of Reading Education.</u> Westport, CT: Greenwood Press.

Stahl, S. A., & Hayes, D. A. (Eds.). (1997). <u>Instructional Models in Reading</u>. Mahwah, NJ: Lawrence Erlbaum Associates.

Sutton, A., & Soderstrom, I. (1999). 0n Predicting Elementary and Secondary School Achievement with School- Related and Demographic Factors. <u>Journal of Educational Research, 92</u>(6), 330-338.

West, J. F. (1990). Educational Collaboration in the Restructuring of Schools. <u>Journal of Educational and Psychological Consultation, 1</u>(1), 23-40.

Wiener, H. S. (1996). <u>Any Child Can Read Better.</u> (2nd ed.). New York: Oxford, US.

Wright, D. (1999). Student Mobility: a Negligible and Confounded Influence on Student Achievement. <u>Journal of Educational Research, 92</u>(6), 347-353.