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Research into Practice

The Central Roles of Language Awareness and Literacy Engagement in Accelerating Students' Academic Development

BY JIM CUMMINS, Ph.D.

There is general agreement among educators that language is infused in all curricular content. Consider, for example, the language demands in the following mathematics word problem:

Is 3 + 8 greater than 10, equal to 10, or less than 10? Explain.

In order to solve this problem, students must know the meanings of the terms *greater than*, *equal to*, and *less than*. They also need to know generally about how comparative adjectives work and the typical conventions for forming comparatives (e.g., *great*, *greater*, *greatest*). Finally, they need to understand the meaning of the word *explain* and be able to describe in writing how they solved the problem.

These linguistic challenges are likely to be especially significant for English language learners (ELLs) who are in the process of learning spoken and written English and catching up academically. The fact that language demands are infused in all curricular subjects clearly implies that classroom teachers must be aware of *scaffolding strategies* that support students in understanding content and language that would otherwise be too difficult for them. Teachers can make the content more comprehensible by means of strategies such as illustrating the meaning through concrete demonstrations or visuals (e.g., graphic organizers and photographs). They can also scaffold meaning through collaborative small-group work and by adapting instruction and curriculum materials to connect with students' background knowledge and previous experience. This process not only increases learning but also validates the legitimacy of students' identities and cultural experiences.

However, the language demands of the curriculum also create important *opportunities* for teachers to reinforce students' grasp of academic language as they learn subject-matter content. In the simple mathematics problem described above, the teacher can ensure that students learn not only the specific meanings of the terms *greater than*, *equal to*, and *less than*, but also synonyms for these terms (e.g., a synonym for *great* is *big*, and the meaning of *greater* than is similar to the meaning of *bigger than*). In the context of talking

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about this mathematics problem, students will also learn the general concept of comparatives and the typical conventions for forming comparatives. The fact that not all comparatives take exactly this form can also be taught in relation to *less*, *lesser*, *least*. Finally, the meaning of the word explain can be taught (e.g., describe, tell about, tell why you think so) and related to its use in other subject areas (e.g., science).

An additional reason for teaching academic language across the curriculum is that ELLs typically require a much longer period to attain grade expectations in academic aspects of English than in social or conversational aspects. Most students will acquire considerable fluency in everyday social language within one or two years of exposure to English in the school and wider environment. However, it typically takes students at least five years (and frequently longer) to catch up to native speakers in academic language proficiency. This extended trajectory is a result of two things: the complexity of academic language and the fact that ELLs are attempting to catch up to a moving target, namely, native speakers of English, whose academic language and literacy skills are increasing significantly from one grade level to the next.

These language-learning trajectories raise the crucial issue of how we can support ELLs and other students in developing a strong grasp of academic language as rapidly as possible. Most teachers are familiar with the importance of scaffolding instruction and increasing student engagement by connecting curriculum content to students' lives. However, in addition to these instructional strategies, teachers can promote powerful academic gains by (a) focusing explicitly on developing students' awareness of how academic language works across the curriculum and (b) ensuring that all students become actively engaged with literacy from the earliest stages of elementary school.

DEVELOPING LANGUAGE AWARENESS ACROSS THE CURRICULUM

A first step in reinforcing students' knowledge about language across the curriculum involves understanding the differences between conversational language and academic language. Conversational fluency is typically acquired more rapidly than academic language proficiency because we can function well in most familiar everyday situations with a relatively small vocabulary of high-frequency words. There are many clues to meaning in face-to-face conversation—eye contact, gestures, facial expressions, intonation—with the result that we don't need to know as much of the language itself to understand the meaning of what is said or to make ourselves understood. By contrast, the language used in schools and more formal situations entails many more low-frequency words and complex grammatical constructions (Hiebert, 2014).

Isabel Beck and colleagues (2008) have made a useful distinction between three levels or tiers of vocabulary that vary according to the frequency with which they occur in different contexts. Tier 1 words are the high-frequency words, typically involving about 2,000 word families that we use in everyday conversation. These words also account for more than 80 percent of written text. Examples of high-frequency Tier 1 words are *time*, *people*, *something*, *years*, *work*.

Tier 2 words represent the general academic vocabulary that is found in a variety of informational, technical, and literary texts. These words account for 8 to 10 percent of the words found in academic texts. Examples include *chapter*, *classification*, *criterion*, *data*, *design*, *component*.

Tier 3 words are low-frequency words that are specific to particular domains or fields of knowledge and are found predominantly in informational texts. Some examples from science include *genome*, *mitochondrial*, *herbivore*, *photosynthesis*. In English and many other European languages, Tier 2 and Tier 3 words derive overwhelmingly from Latin and Greek sources. In English, the high-frequency Tier 1 words typically derive from Anglo-Saxon sources, and many have cognate relationships with the Germanic languages of northern Europe such as Swedish, Dutch, and German.

Beck and colleagues (2008) argue that instruction should focus on the high-utility Tier 2 words that carry the meaning in multiple texts across the curriculum. Attention should be paid to the low-frequency Tier 3 words when these are essential to understanding particular texts. However, they are not of high utility outside these specific contexts. English language learners frequently encounter Tier 1 words in the language through their everyday interactions in school and outside the home, but expansion of vocabulary beyond these words happens through explicit instruction and through extensive reading. This is because Tier 2 and Tier 3 words are found predominantly in classroom discourse and in printed text.

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Teachers can reinforce students' awareness of how academic language works by means of the following instructional strategies:

- Include *language objectives* as well as content objectives in lesson plans for all curriculum subjects.
- Several times a week, engage students in discussion of what linguist Lily Wong Fillmore calls "juicy sentences." This involves working with students to unpack how meaning is encoded in one or two of the complex sentences that occur in the texts students are reading. Choose sentences that pack lots of information into extended noun phrases, use passive verbs, and contain complex grammatical structures. Wong Fillmore points out that when students regularly engage with complex text and gain experience in unpacking meanings, they develop *habits of mind* that enable them to notice and pay attention to how language works (Wong Fillmore & Fillmore, 2012).
- Focus explicitly on cognates and other cross-lingual connections. As noted previously, the less-frequent academic vocabulary in English derives from Latin and Greek sources and consequently has many cognate connections with languages such as Spanish that are also derived from the same roots (e.g., *encounter/encontrar*). Thus, Spanish-speaking students generally, and especially those who have developed literacy in Spanish, have a huge potential advantage in working out the meanings of low-frequency English words. A cross-lingual instructional focus also extends beyond vocabulary. For example, in a bilingual program, conventions of literacy such as rules for paragraph formation that are being taught in one language (e.g., Spanish) can be reinforced in the other language (e.g., English).
- In general, teachers should take every opportunity to draw students' attention to how language works right across the curriculum and to stimulate their curiosity about language and how to use it for powerful purposes.

LITERACY ENGAGEMENT IS ESSENTIAL FOR LITERACY ACHIEVEMENT

The case for literacy engagement as a primary determinant of reading achievement is both logical and empirical. Logic dictates that literacy engagement is crucial because academic language is found primarily in printed text rather than in everyday conversation. Students who do not read extensively have far less access to academic language than their peers who become actively engaged with literacy. Active engagement with printed text is particularly important for ELLs who are trying to catch up academically.

The empirical case for literacy engagement as a primary determinant of achievement derives from the following research findings:

- Even children's picture books, intended for children in the early grades, contain almost twice as many sophisticated or rare words compared to the speech adults direct to children or to the speech between adults (Massaro, 2015). Therefore, children who experience less access to print at home and school have less opportunity to expand their vocabulary knowledge and develop familiarity with other aspects of academic language (e.g., grammar and discourse conventions).

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- Students from low-income backgrounds experience significantly less access to written language in their homes, schools, and neighborhoods (e.g., public library access) than higher-income students do (Duke, 2000; Neuman & Celano, 2001).
- An extremely large body of research demonstrates a *causal relationship* between literacy engagement and literacy achievement for both native speakers and second-language speakers of the school language (Guthrie, 2004; Krashen, 2004; Lindsay, 2010).

The strength of the relationship between literacy engagement and reading achievement is most obvious in the large-scale research carried out over the past 20 years by the Organisation for Economic Cooperation and Research (OECD). Their Programme for International Student Achievement (PISA) has tested 15-year-old students in countries around the world in reading, science, and mathematics and has identified school and student background variables that predict achievement in these subjects. Reading researcher John Guthrie (2004, p. 5) summarized the conclusions of the early PISA studies, noting that students

> whose family background was characterized by low income and low education, but who were highly engaged readers, substantially outscored students who came from backgrounds with higher education and higher income, but who themselves were less engaged readers. Based on a massive sample, this finding suggests the stunning conclusion that engaged reading can overcome traditional barriers to reading achievement, including gender, parental education, and income.

More recent PISA findings (e.g., OECD, 2010) confirm these trends. Engagement in reading was assessed through measures of time spent reading various materials, enjoyment of reading, and use of various learning strategies. Across OECD countries, reading engagement was significantly related to reading performance, and there was about a one-third overlap between the positive effects of reading engagement and the negative effects of socioeconomic disadvantage. The implication is that schools can potentially “push back” about one-third of the negative effects of socioeconomic disadvantage by ensuring that students have access to a print-rich environment and become actively engaged with literacy.

In developing school-based policies focused on print access and literacy engagement, educators might discuss issues such as the following:

- To what extent is our school library stocked with culturally relevant and engaging books that students are encouraged to check out and read at home?
- To what extent do our students have access to classroom libraries that they can use for independent reading within class and at home?
- To what extent do our school and classroom libraries include books in students’ home languages?
- To what extent do we work with parents to ensure that they know about local public libraries and get library cards for their children?
- To what extent do we schedule whole-class and/or small-group discussions of books that encourage students to think more deeply about issues and allow us, as teachers, to communicate our enthusiasm for reading?

CONCLUSION

Language awareness and literacy engagement operate in complementary ways—they are two sides of the same coin. The more students engage with text through reading, writing, and talking about the ideas in texts, the more knowledge they will develop about how academic language works with respect to both conventions of printed text and how ideas can be expressed clearly and effectively. This growth in language awareness that derives from active engagement with literacy will be enhanced when teachers explicitly draw students' attention to language and stimulate their curiosity about language. The ultimate outcome for all students of this sustained instructional focus on language awareness and literacy engagement across the curriculum is increased reading achievement and more confident and powerful users of written and oral language.

References

Beck, I. L., McKeown, M. G., & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples.* New York: Guildford Press.f

Duke, N. (2000). For the rich it's richer: Print experiences and environments offered to children in very low- and very high-socioeconomic status first-grade classrooms. *American Educational Research Journal*, 37, 441–478.

Guthrie, J. T. (2004). Teaching for literacy engagement. *Journal of Literacy Research*, 36, 1–30.

Hiebert, E. F. (2014). Knowing what's complex and what's not: Guidelines for teachers in establishing text complexity. TextProject Inc., Santa Cruz, California. Retrieved from http://textproject.org/assets/library/papers/Hiebert-2014-Knowing-whats-complex-and-whats-not.pdf

Krashen, S. D. (2004). *The power of reading: Insights from the research.* 2nd edition. Portsmouth, NH: Heinemann.

Lindsay, J. (2010). *Children's access to print material and education-related outcomes: Findings from a meta-analytic review.* Naperville, IL: Learning Point Associates.

Massaro, D. W. (2015). Two different communication genres and implications for vocabulary development and learning to read. *Journal of Literacy Research, 47*(4), 505–527. DOI: 10.1177/1086296X15627528

Neuman, S.B., & Celano, D. (2001). Access to print in low-income and middle-income communities: An ecological study of four neighbourhoods. *Reading Research Quarterly, 36*, 8–26.

Organisation for Economic Cooperation and Research. (2010). *PISA 2009 results: Learning to learn—Student engagement, strategies and practices (Volume III).* Paris: OECD. Retrieved from http://www.oecd.org/dataoecd/11/17/48852630.pdf

Wong Fillmore, L., & Fillmore, C. J. (2012). What does text complexity mean for English learners and language minority students? Stanford University Understanding Language project. Retrieved from http://ell.stanford.edu/papers/language