Academic Proficiency (Language and Content) and the Role of Strategies

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This report continues the work of Krashen and Brown (2007), developing and evaluating a set of hypotheses for the development of academic proficiency. That article defined academic proficiency as having two components: academic language proficiency and knowledge of academic content.
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ACADEMIC LANGUAGE: THE READING HYPOTHESIS

Hypothesis: The major path to academic language proficiency is reading, specifically, wide self-selected reading eventually supplemented by reading in the specific area of interest. Wide self-selected reading (i.e., free voluntary reading, or FVR) provides the basis for the comprehension of academic prose.

Note that this hypothesis does not say that FVR is enough. Rather, FVR is a bridge that makes the comprehension of academic texts possible. The hypothesis states that people acquire academic language in the same way they acquire language in general—by understanding messages. It states that academic language is not consciously learned but acquired (Krashen, 1982).

The Evidence

The evidence for the hypothesis that we acquire academic language from reading includes many studies showing the power of free voluntary reading:

- studies of sustained silent reading, done with a wide variety of subjects of different ages and in different parts of the world, showing that those who

engage in in-school free reading programs develop greater competence in literacy
- correlational studies confirming that more FVR leads to greater literacy competence
- case studies in which FVR is the only possible source of academic language proficiency (Krashen, 2004, 2007)

THE CLASSIC APPROACH TO ACADEMIC LANGUAGE COMPETENCE

I define the classic approach in the field of language education as being based on the assumption that language development occurs when we have a conscious understanding of the elements of language and that we make these understandings automatic through practice, usually in the form of output. The classic approach does not include the alternative, the view that language development occurs when we understand messages (Krashen, 1982). The classic approach depends, in other words, on conscious learning, not subconscious acquisition.

The field of English for academic purposes (EAP) is founded on the assumptions that academic language is developed via the classic approach, that the task of linguists is to describe the elements of academic language, and that the task of applied linguists is to convert these descriptions into statements of rules for students and exercises for them to make their understandings automatic.

This is a hopeless endeavor, one that has never been done by mortals.

The Evidence Against the Classic Approach

Complexity and the Limits of Conscious Learning

Only a few of the most basic aspects of academic language can be consciously learned. The descriptions we have show that the discourse and grammar of academic language is quite complex (e.g., Swales, 1990; Schleppegrell, Achugar, & Oteiza, 2004) and challenging even for the professional reader to understand, let alone students trying to learn the academic language.

Incomplete Description

Even if students could learn the complex rules, for the classic approach to succeed there must be a complete description of academic language. There isn't. Instead, there is an ever-changing professional literature filled with attempts to describe academic prose.

Reading Defeats Instruction

Lao and Krashen (2000) compared instruction in academic language and reading. University-level English as a foreign language (EFL) students in Hong Kong read and discussed interesting and comprehensible novels, including one that they self-selected. The readers outperformed students in an academic study skills class on a variety of measures.

No Examples of Success

There are no case histories of successful acquisition of academic language through formal study alone. Some people might feel that formal study was responsible for their success, but I don't think they realize how much academic prose they acquired through reading. The few aspects that they consciously learned and remember are given a great deal of importance. However, they comprise a tiny part of the language competence.

The classic approach, nevertheless, remains the basis for EAP, and the lack of evidence supporting it is never discussed.

A PROFOUND DIFFERENCE

A profound difference between the classic approach and acquisition of academic language via reading is that in the classic approach, the goal in the mind of the student is mastery of academic language. In the reading approach, acquisition of the academic language is a by-product; the goal is understanding what is on the page. In other words, those who have acquired the academic language did not set out to acquire the academic language. They read for interest and pleasure, for the content.

The result of classic instruction is a conscious knowledge of the elements of academic language. The result of reading is a feel for academic prose.

OBJECTIONS TO ACQUIRING ACADEMIC LANGUAGE COMPETENCE VIA READING

Objection: It Isn't Enough

Gardner (2004) has argued that narrative texts do not have enough academic vocabulary and thus cannot prepare readers for academic reading. His conclusion is based on the finding that narrative texts written for fifth graders that he analyzed did not include the same academic vocabulary as a set of expository texts written for fifth graders. But Gardner assumes that light reading needs to provide readers with everything they need in order to understand every word of expository writing that they may encounter that year. It doesn't. It simply needs to help readers eventually understand academic texts in general.

In fact, the narrative texts Gardner (2004) analyzed contained 338 academic words that appeared often enough to allow acquisition (Krashen, 2010). Gardner's narrative sample contained one million words, considered to be what the average native-English-speaking fifth grader reads in one year. This suggests that a year of self-selected reading will result in the acquisition of 338 academic words. That's a real contribution, whether or not these words also appeared in the expository texts that the children might read that year.

Gardner (2008) presents a similar argument based on narrow texts, books written by a few authors or on a narrow range of themes. My analysis (Krashen, 2010) shows that the narrow reading texts Gardner analyzed would result in the acquisition of 783 words in one year, about double the figure estimated for academic words from the texts in Gardner (2004), confirming the advantage of narrow reading.

Objection: The Classic Method Is Faster

Supporters of the classic method typically argue that there is no time to do things the ''natural way'' through reading because students, especially students of English as a second or foreign language, must deal with complex texts immediately. Even if academic language could be described and taught, it is not at all clear that this is true. In a number of studies (Mason 2006, 2010a,

2010b; Mason & Krashen, 2004; Mason, Vanata, Jander, Borsch, & Krashen, 2009), Beniko Mason has presented data that suggest that developing word knowledge and grammatical accuracy by reading and listening is typically more efficient, in terms of knowledge of language gained per hour, than direct instruction.

ACADEMIC CONTENT COMPETENCE: SMART PEOPLE DON'T STUDY

Hypothesis: Contrary to traditional assumptions, people learn new facts and new concepts in only one way: by trying to solve problems.

Those who have acquired encyclopedic knowledge of a field and who have understood and discovered complex concepts did not do it through study, by consciously trying to remember facts and concepts. They did it by trying to solve problems of great interest to them. I have reviewed the evidence for this hypothesis in previous publications (most recently, Krashen, 2003).

In contrast to those who study, the goal of problem solvers is not to learn about a body of knowledge and be able to remember it. The goal is to solve problems. Knowledge is a by-product.

Higher education generally understands this. Quite often, a master's degree is granted when the student completes eight advanced courses, each requiring not an exam, but a term paper, a completed research project. The assumption, which I think is usually correct, is that problem solving in eight areas will result in a level of knowledge of the field that is associated with the master's degree. And of course the doctorate is granted on the completion of a dissertation—major problem solving—not on the basis of an examination. Doctoral students spend their dissertation year trying to solve the problem, not studying.

Consistent with the hypothesis that academic content knowledge comes from self-selected reading and problem solving, as opposed to study, are those eminent scientists who were mediocre students (Simonton, 1988, pp. 118–120). The most famous example is Albert Einstein. Ohanian (2008) notes that, at the university, ''Einstein was a rather erratic student, skipping many classes and barely completing the minimum work for graduation, while devoting most of his time to independent study of more advanced topics in physics'' (p. 11). The same, Ohanian notes, was true of

Isaac Newton: ''As a student at Cambridge, Newton focused on his own research and neglected the standard curriculum, with the result that he did poorly in his final exams'' (p. 59).

There are also many examples of eminent scholars who were excellent students (e.g., Marie Curie, Robert Oppenheimer). My suspicion is that these individuals also got most of their knowledge outside of school, pursuing their own interests, as Einstein and Newton did. The resulting knowledge, however, happened to coincide with the requirements of the classes they were taking. Another possibility is that the classwork happened to be work they were very interested in doing and answered questions they already were concerned with.

Bloom's (1963) research supports this conclusion:. He reported that the most successful graduate students were those who, in a sense, sided with the faculty, who shared the faculty's concern with investigation and problem solving. The less successful regarded their graduate school experience as a series of courses to be passed and requirements to be met. The courses and requirements were often incidental in the lives of graduate students committed to problem solving. These successful students had ''a preoccupation with problems rather than the subject-matter of courses . . . the relatively complete acceptance of the role of research worker and scholar (rather than the role of student)'' (pp. 257–258).

Study alone has not been shown to work. Study combined with problem solving seems to work, but my hypothesis is that it is the problem solving that counts.

An Autodidact: Michael Faraday

Additional evidence that problem solving and self-selected reading work is present in case studies of *autodidacts,* people with little schooling who developed high levels of academic content knowledge, as well as academic linguistic proficiency in many cases.

Michael Faraday is a good example. Faraday came from a poor family, left school before he was 13, and worked for 7 years as an apprentice bookbinder. This meant he had a great deal of access to books. His employer ''was a sympathetic and helpful individual who did much to encourage his apprentices' interests'' (Howe,

1999, p. 266). According to Howe, Faraday read voraciously and also attended lectures and classes on his own.

Faraday clearly never studied, never prepared for examinations. He did a great deal of wide reading when he was a teenager, including The Arabian Nights and various novels. Howe (1999) speculates that Faraday's interest in science grew gradually, becoming firm when he was approximately 18. Around this time he began a rigorous self-study program, deeply influenced by the work of Isaac Watts, who emphasized critical and creative reactions to reading: ''It is the exercise of your own reason and judgement upon all you read that . . . affords your understanding the truest improvement'' (Watts, cited in Howe, 1999, p. 93).

Working as an assistant to a famous chemist named Humphrey Davy, Faraday immediately took advantage of the facilities available to him and ''plunged into research of his own'' (Howe, 1999, p. 102) at age 21, and published his first paper at age 25. Faraday's stunning career after this was a series of problems he attempted to solve, with great success.

The case of Michael Faraday is consistent with creativity researcher Simonton's (1988) conclusions: ''Omnivorous reading in childhood and adolescence correlates positively with ultimate adult success'' (p. 11). I must add, however, a commitment to problem solving.

The two kinds of competence interact with each other: Linguistic competence helps in the acquisition of content knowledge, and content knowledge can make input more comprehensible, which helps the development of linguistic proficiency.

OTHER SOURCES

Reading is not the only source of input containing academic language. Other sources, such as classroom input, contain aspects of academic prose. However, classroom input appears to have more in common linguistically with face-to-face interaction than with written academic prose (Biber, 2006).

Of course, classrooms and conversation help us solve problems by providing information from others through interaction, but my hunch is that most creative work is solitary. Interaction can play a role; descriptions of eminent scientists reveal a considerable amount

of interaction with others, but more time spent alone. Faraday, for example, was ''in many respects a solitary scholar'' and ''usually avoided students working under him. . . . [A]s one of his biographers put it, Faraday's dialogue was with nature'' (Howe, 1999, p. 104).

STRATEGIES

If the set of hypotheses presented earlier are correct, we can predict that useful strategies are those that help provide comprehensible, interesting text; that help make texts more comprehensible; and that help in problem solving.

We need to distinguish two different kinds of strategies:

Innate Strategies

Some strategies don't need to be taught; they are part of our innate mental equipment. The strategy of prediction, for example, is frequently taught. Anderson (2003) provides an example of students deliberately practicing prediction:

> Students specifically focused on making predictions of text content. The students made a prediction, read a portion of the text, and then paused to confirm or reject their prediction. They then continued the cycle of predicting followed by confirming or rejecting their guesses multiple times during the reading passage. (para. 14)

Frank Smith (1983) argues that prediction is innate and that we are constantly predicting. In fact, we never stop predicting, and we are very good at it, which is how we get through the day. Successful perception, as well as comprehension, is the confirmation that our predictions were correct; we use only enough data from the outside world to confirm our predictions. Prediction is only hard, Smith explains, when we are bewildered. In reading classes, this happens when texts are incomprehensible or devoid of interest. In normal reading, we predict all the time.

Another example is teaching students to compare and contrast. This is quite an effort when talking about crops from different geographical areas with middle school students. But if you ask some ''nonacademic'' baseball fans to compare and contrast A-Rod

and Barry Bonds, they will have no trouble. And many people who would be stumped by school compare/contrast assignments can provide a thorough analysis of the similarities and differences between Angelina Jolie and Jennifer Aniston. Teachers have the illusion that students have not mastered these strategies only because texts and assignments are boring or confusing.

Deprogramming Strategies

Some of the strategies that teachers do teach, and that seem to actually help, are those that should develop naturally as people read and try to solve problems. They often don't, because of the influence of school. Teaching these strategies amounts to de-programming.

Among the deprogramming reading strategies are these:

Skip words you don't know

Some readers think they need to know every word, even when reading for pleasure, especially in a second or foreign language. Once readers free themselves from the constraint of having to know every single word, as long as the text is reasonably comprehensible, reading becomes easier and more pleasant, and, ironically, more vocabulary acquisition takes place (Krashen, 2004).

Lower your standards

Some second language readers feel they should only read books that will make them a better person, thanks to the influence of classes that cover literature classics. They may even be unaware of the options for light reading. Doing light reading, even reading that provides zero insight into other cultures, is in fact a step toward reading the classics and learning about history and culture, because it builds the competence that helps makes these demanding texts comprehensible.

For second language acquirers, keep reading in your first language

While learning English as a second or foreign language, an English-only policy is actually detrimental to growth in English. Readers can gain a tremendous amount of background knowledge in the first language that makes second language reading and second

language input in general more comprehensible. This is, of course, one of the rationales behind bilingual education, which has been shown to be highly successful in helping students acquire academic English (Crawford & Krashen, 2007).

Among deprogramming strategies are the components of the composing process, such as these:

Be willing and even eager to revise

Because of poor instruction, some students feel that revision is a sign of weakness and that they must get all their ideas right on their first draft. For them, revision only means making a neater version of their first draft. This is encouraged by in-class exams and assignments, in which students have only a limited time to construct an essay or written answer in response to a question that is presented to them for the first time.

Revision is the source of many new ideas. Elbow (1973) refers to the power of revision when he notes that ''in writing, meaning is not what you start out with but what you end up with.''

Vonnegut (1981) gives revision a great deal of credit:

> Novelists have, on the average, about the same IQs as the cosmetic consultants at Bloomingdale's department store. Our power is patience. We have discovered that writing allows even a stupid person to seem halfway intelligent, if only that person will write the same thought over and over again, improving it just a little bit each time. It is a lot like inflating a blimp with a bicycle pump. Anybody can do it. All it takes is time. (p. 128)

Delay editing

Over-concern with accuracy, stimulated by instructional practices as well as time constraints, motivates students to worry about punctuation, grammar, and spelling as they write, which diverts attention from what they are saying. Direct strategy instruction in this case simply advises writers to delay editing until the final draft.

Peter Elbow (1973) puts it this way:

> Treat grammar as a matter of very late editorial correcting: never think about it while you are writing. Pretend you have an editor who will fix everything for you, then don't hire yourself for this job until the very end. (p. 137)

I mention only these two as examples of instances in which direct instruction may work very well as a means of de-programming. There are of course others (Krashen, 2003).

The common assumption is that all we as teachers have to do is see what strategies experts use and teach these strategies to our students. I question this assumption, without ruling out the possibility that some strategies are teachable and direct instruction in these strategies is a real help to students.

CONCLUSION

Pedagogy in developing academic proficiency has been dominated by the assumption that academic linguistic proficiency and knowledge of academic content can be described and taught directly. My goal is to reduce this axiom to the status of hypothesis: There is strong evidence that academic language proficiency is acquired through reading, and that knowledge of content is developed through problem solving.

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REFERENCES

Anderson, N. J. (2003). Metacognitive reading strategies increase L2 performance. *The Language Teacher*, *27*(7). http://www.jalt-publications.org/tlt

Biber, D. (2006). *University language: A corpus-based study of spoken and written registers*. Philadelphia, PA: John Benjamins.

Bloom, B. (1963). Report on creativity research by the examiner's office of the University of Chicago. In C. Taylor & F. Barron (Eds.), *Scientific creativity: Its recognition and development* (pp. 261–264). New York: John Wiley & Sons.

Crawford, J., & Krashen, S. (2007). *English learners in American classrooms: 101 questions, 101 answers*. New York, NY: Scholastic.

Elbow, P. (1973). *Writing without teachers.* New York, NY: Oxford University Press.

Gardner, D. (2004). Vocabulary input through extensive reading: A comparison of words found in children's narrative and expository reading materials. *Applied Linguistics, 25*, 1–37. doi:10.1093/applin/25.1.1

Gardner, D. (2008). Vocabulary recycling in children's authentic reading materials: A corpus-based investigation of narrow reading. *Reading as a Foreign Language, 20*(1), 92–122.

Howe, M. (1999). *Genius explained*. Cambridge, England: Cambridge University Press.

Krashen, S. (1982). *Principles and practice in second language acquisition.* New York, NY: Prentice Hall.

Krashen, S. (2003). *Explorations in language acquisition and use: The Taipei lectures.* Portsmouth, NH: Heinemann.

Krashen, S. (2004). *The power of reading.* Portsmouth, NH: Heinemann.

Krashen, S. (2007). Extensive reading in English as a foreign language by adolescents and young adults: A meta-analysis. *International Journal of Foreign Language Teaching, 3*(2), 23–29.

Krashen, S. (2010, November). *Academic language proficiency: Acquired or learned?* Paper presented at the 19th International Symposium and Book Fair on English Teaching, Taipei, Taiwan.

Krashen, S., & Brown, C. L. (2007). What is academic language proficiency? *STETS Language and Communication Review, 6*(1), 1–4.

Lao, C. Y., & Krashen, S. (2000). The impact of popular literature study on literacy development in EFL: More evidence for the power of reading. *System, 28*, 261–270. doi:10.1016/S0346-251X(00)00011-7

Mason, B. (2006). Free voluntary reading and autonomy in second language acquisition: Improving TOEFL scores from reading alone. *International Journal of Foreign Language Teaching, 2*(1), 2–5.

Mason, B. (2010a). Comprehension is the key to efficient foreign language education: Self-selected reading and story-listening are the solutions. *The Bulletin of Shitennoji University, 49*, 371–380.

Mason, B. (2010b, November). *Impressive gains on the TOEIC after one year of comprehensible input, with no output or grammar study.* Paper presented at the 19th International Symposium and Book Fair on English Teaching, Taipei, Taiwan.

Mason, B., & Krashen, S. (2004). Is form-focused vocabulary instruction worth-while? *RELC Journal, 35*(2), 179–185. doi:10.1177/003368820403500206

Mason, B., Vanata, M., Jander, K., Borsch, R., & Krashen, S. (2009). The effects and efficiency of hearing stories on vocabulary acquisition by students of German as a second foreign language in Japan. *Indonesian Journal of English Language Teaching, 5*(1), 1–14.

Ohanian, H. (2008). *Einstein's mistakes*. New York, NY: W. W. Norton.

Schleppegrell, M., Achugar, M., & Oteiza, T. (2004). The grammar of history: Enhancing content-based instruction through a functional focus on language. *TESOL Quarterly, 38*, 67–93. doi:10.2307/3588259

Simonton, D. K. (1988). *Scientific genius: A psychology of science.* New York, NY: Cambridge University Press.

Smith, F. (1983). The role of prediction in reading. In *Essays into literacy* (pp. 35–39). Portsmouth, NH: Heinemann.

Swales, J. (1990). *Genre analysis: English in academic and research settings.* Cambridge, England: Cambridge University Press.

Vonnegut, K. (1981). *Easter Sunday*. New York, NY: Dell.