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Seeking a Justification for Skill-Building

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Skill-Building, the idea that we acquire language by first learning rules (or discovering them) and then practicing them in output, is the basis for pedagogy in most language classrooms throughout the world. Several kinds of evidence, however, show that Skill-Building at best plays only a small and peripheral role: we can acquire language without it, the means needed for Skill-Building (output, correction) are scarce, and the rules to be learned are very complex.

I review here some of the evidence showing the severe limits of the Skill-Building Hypothesis, a hypothesis based on conscious learning. First, some definitions.

COMPREHENSION AND SKILL-BUILDING

Current theory distinguishes two very different ways of developing ability in another language:

The Comprehension Hypothesis says that we acquire (not learn) language when we understand messages, oral and written. When we develop linguistic competence in this way, our goal is usually not to acquire language but to understand the message. The development of language competence is a by-product.

The Skill-Building Hypothesis says that we first learn rules consciously and then practice them in output until they become “automatic”: In other words, consciously learned knowledge becomes “acquired” knowledge. When we develop linguistic competence in this way, our goal is to get better at the language. Any other information we pick up along the way is a by-product.

Forms of Skill-Building

The *deductive-inductive* distinction refers only to the Skill-Building Hypothesis.

Deductive learning (not acquisition) occurs when the learner (not acquirer) is given the rule by a teacher or learns about it through reading a grammar, and the learner then practices the rule in output. The terms “direct teaching” and “explicit teaching” generally apply to deductive learning.

Inductive learning happens when the learner (not acquirer) discovers the rule. This can happen when the learner says or writes something and makes a mistake,

which is corrected. The learner then changes his or her version of his conscious rule. This is termed *output plus correction*. It can also happen when the learner says something, but his or her conversational partner fails to understand. The learner then changes his version of the rule and tries again, and eventually arrives at the correct version of the rule. This is referred to as *comprehensible output*.

We move now to some of the evidence showing the severe limits of the Skill-Building Hypothesis, evidence that also provides support for the Comprehension Hypothesis.

ACQUISITION WITHOUT LEARNING

Showing that we can develop high levels of competence in language (first or second) without any form of conscious learning shows that Skill-Building is not necessary, and is even a problem for the claim that Skill-Building makes a significant contribution to language development. It is likely that nearly all language development that members of the human race have experienced were cases of acquisition without learning, depending only on comprehensible input.

In previous publications, I have presented evidence that grammar, vocabulary, spelling, phonemic awareness, phonics, and knowledge of text structure can be acquired and improved without explicit instruction or skill-building of any kind, as well as evidence that the source of competence in these areas is aural and written comprehensible input, with, of course, spelling, phonemic awareness, phonics, and text structure coming from reading (Krashen, 1981, 1982, 1985, 1989, 2002, 2003, 2010; Krashen & Hastings, 2011).

In Krashen (2007), I described the case of Armando, an immigrant to the US from Mexico who worked in an Israeli restaurant in Los Angeles. Armando not only acquired English, but also acquired Hebrew, the language used in the restaurant. Armando was not particularly interested in going to Israel or becoming Jewish; his acquisition of Hebrew was a result of his friendly relationship with the family who owned the restaurant and the customers. Native speakers who heard a recording of Armando in conversation rated his Hebrew as at least very good; one judge thought Armando was a native speaker of Hebrew. Armando told me that he had never studied Hebrew grammar, did not think about grammatical rules when using Hebrew, and received correction only on vocabulary.

Mason (2006) demonstrated that students can improve substantially on the TOEFL examination via pleasure reading alone. In her study, six adult second language acquirers in Japan agreed to engage in a recreational reading program to prepare for the TOEFL. Each chose somewhat different reading material according to their own interests, and they read for different lengths of time, between one to four months, and took alternate forms of the TOEFL test before and after doing the reading. The average gain was 3.5 points per week on the overall test, and improvement was seen on all three components, listening (2.2 points), grammar (3.6 points), and reading (4.6 points). This gain is about the same as one sees with a full time TOEFL preparation class given in the United States and is consistent with studies showing that reading is an excellent predictor of TOEFL performance (Gradman & Hanania, 1991; Constantino, Lee, Cho, & Krashen, 1997).

SCARCITY

As noted earlier, inductive versions of the Skill-Building Hypothesis involve output: output plus correction and comprehensible output. For these mechanisms to make any significant contribution to language development, output, correction, and comprehensible output must exist in sufficient quantity. But they don't.

My review of the frequency of writing in school and outside of school (Krashen, 1994) confirmed Frank Smith's statement: ". . . no one writes enough to learn more than a small part of what writers need to know" (Smith, 1988, p. 19), and I also concluded that correction and oral output were too scarce to make a significant contribution to language or literacy development.

The data on the frequency of comprehensible output shows that it is surprisingly infrequent (Krashen, 1998, 2003). Acquirers don't talk all that much, compared to how much they hear, and when they do talk, they do not often make the kind of adjustments the Comprehensible Output Hypothesis claims are useful in acquiring new forms.

In some studies, language acquirers produced as little as one instance of comprehensible output per hour of interaction (Pica, 1988; Lyster & Ranta, 1997). Comprehensible output is more frequent when the situation is set up to encourage it, but is still infrequent, ranging from two a minute (Shehadeh, 2002) to one every five minutes (Van den Branden, 1997). Even if comprehensible output were more frequent in these studies, it would be of limited value if it is only produced in contrived situations.

COMPLEXITY

The complexity argument presents a serious problem for any rival hypothesis that insists on the necessity of consciously learning rules of language or writing. It therefore applies to all versions of the Skill-Building Hypothesis. The most obvious example is grammar. Anyone who has studied linguistics knows that decades of intensive labor have been invested in coming up with an accurate description of English, the most described language, but the results are extremely complicated and the job is far from done.

As has been documented elsewhere (Krashen, 1989), there are too many vocabulary items to be learned one at a time. Nation (2006) has estimated that native speakers of English know about 20,000 word families, and that highly educated non-native speakers of English as a second language know 8000 to 9000 word families. This cannot be the result of 20,000 trips to the dictionary or 20,000 flash cards. In addition, there are also subtle and complex properties of words that competent users have acquired, as well as grammatical properties

The rules of phonics are often extremely complicated and many do not work very well (Smith, 2011; Krashen, 2002), and this is also the case for English spelling (Krashen, 1989, 2004).

The many published studies of the structure of texts provide clear evidence that text structure cannot be taught directly. The structure of texts is bewilderingly complex. The descriptions of text structure in journal papers aimed at teachers and materials creators are very difficult to understand. It is hard to

imagine any student mastering this knowledge consciously.

Readers are invited to see for themselves, e.g., Swales' (1990) discussion of introductions to research articles as well as the different methods writers use to cite previous research. Swales' (1990) book is a revision of Swales (1981), which means that the structure of introductions of research articles is a developing area of research where many issues are not settled. It is thus highly likely that we are providing students with incomplete descriptions. Clearly, many people have managed to acquire the structure of research articles without the benefit of accurate descriptions.

Other scholars have contributed equally complex and confusing descriptions of text structure, recommending that we teach these descriptions to students (for more, see Schleppegrell, Achugar, & Oteiza, 2004).

WHEN CONSCIOUS LEARNING SEEMS TO WORK

Supporters of Conscious Learning as the central path to language proficiency have claimed that conscious learning works, and at times, insist that it is more powerful than subconscious language acquisition.

When conscious learning seems to work, one or more of the following conditions is present:

1. The conditions for Monitor are met: focus on form, know the rule, enough time to access consciously learned rules. Even when the conditions are met, the results in favor of conscious learning are very modest.
2. Conscious learning has been compared to doing nothing, or to another form of skill-building.
3. A close look reveals the presence of a considerable amount of comprehensible input.

Master (1994) is a good example of both (1) and (2): His subjects were university-level ESL students in the US who had six hours of instruction on the article. All were already fairly advanced, and undoubtedly had previous instruction on the article in previous EFL or ESL classes. Also, as international students in the US, we can be confident that these students were used to grammar study, expected it, and were at least fairly good at it. If the English article is teachable, this study should show it. But subjects showed only small gains on a grammar test that focused on the article. In addition, the comparison students had traditional instruction, which may or may not have included some work on the article. The intensive article instruction was, in other words, compared to doing practically nothing.

Master's results and interpretations are not unique. Studies of this kind typically compare a healthy dose of grammar teaching to doing nothing or to a very weak form of comprehensible input and find very small differences on tests that encourage the use of grammar. Also, in nearly all studies adequate time is provided for the application of rules. And all of the studies claim victory for grammar study.

Studies claiming to show that direct teaching of text structure is effective compare direct teaching of text structure to "word study and dictionary use" (Spiegel & Fitzgerald, 1986), and "directed reading activities," described as a

reading task followed by comprehension questions (Reutzel, 1985; Greenewald & Rossing, 1986). In other words, the comparison was between teaching text structure and not teaching text structure.

When comparison students engage in real language use, the results are different: In Purcell-Gates, Duke, & Martineau (2007), one group of second-graders received ordinary science instruction, without explicit mention of text structure. A second group had direct instruction on the structure of both informational and procedural science texts. The research team reported that the amount of explicit teaching going on in all classes was not a significant predictor of gains in reading or writing science-oriented texts over a two-year period, but the quantity of “authentic reading and writing activities” taking place was. Unfortunately, Purcell-Gates et al. did not investigate the specific contribution of reading, but their results are consistent with the hypothesis that reading is the source of children’s knowledge of text structure.

Their overall conclusion was: “. . . for second and third graders, growth in the ability to comprehend and write science informational texts and procedural texts is not enhanced by the explicit teaching of linguistic features specific to those genres as implemented in this study” (p. 41).

In several previous publications, I discussed the claim that the archeologist Heinrich Schliemann mastered English in 6 months through study alone (Krashen, 1991). A closer look revealed that Schliemann had exposure to a substantial amount of comprehensible input in English, both oral and written, including a daily English lesson, reading out loud “for extended periods of time,” and attending two English church services on Sundays. He also (believe it or not) memorized *Vicar of Wakefield* and *Ivanhoe*!

What It Takes to Be an Expert Grammar User: David Tammet

The case of Daniel Tammet became well known after a documentary, *Brainman*, was made. It has been shown world-wide since May, 2005. Tammet suffers from savant syndrome, a form of autism characterized by “an obsessive need to order and routine” (Tammet, 2006) and in his case, and extraordinary ability to deal with numbers. The documentary featured his linguistic abilities: After ten days of study of Icelandic, Tammet was able to converse in the language with two native speakers for 15 minutes. Tammet now knows ten languages.

Much of his ability in language acquisition is, without question, really a profound ability in language learning, not acquisition: Tammet has an incredible memory. He holds the European and British record for memorizing pi, at 22,514 digits. (This is, incidentally, sixth in the world. The world record is held by Chao Lu, 67,890; see <http://www.pi-world-ranking-list.com>).

It is clear, however, that he uses both learning and acquisition: While studying Lithuanian, while working as an English teacher in Lithuania, he worked with a teacher: “I wrote words down as I learned them to help me visualize and remember them” (conscious learning) and read children’s books . . . (acquisition)” (p. 134). (Parenthetical notes added by SK.)

When he started working on Icelandic, he read texts aloud so his teacher could check his pronunciation (conscious learning), but he also stated that “the large amount of reading helped me to develop an intuitive sense of the language’s

grammar (acquisition)” (pp. 208-209).

“When I’m learning a language there are a number of things that I consider essential materials to begin with. The first is a good-size dictionary (conscious learning). I also need a variety of texts in the language, such as children’s books, stories and newspaper articles, because I prefer to learn words within whole sentences to help give me a feeling for how the language works (acquisition)” (p. 161).

Tammet has set up a website, selling lessons in beginning and intermediate Spanish and French (<http://www.optimnem.co.uk>). An inspection of the syllabi, available without charge, reveals that the focus of each lesson is a point of grammar.

Before we conclude from this case that the best approach is a combination of acquisition and learning, we have to remember that Daniel Tammet has memorized pi to 22,514 digits. A safer conclusion is that conscious learning works well for those with the prodigious mental powers of Daniel Tammet.

CONCLUSION

At one time, the field of language education was based on the Skill-Building Hypothesis. The evidence presented here and elsewhere, however, shows that Skill-Building cannot be the means by which humans acquire language, and there is doubt that Skill-Building plays more than a minor peripheral role in language use. Nevertheless, Skill-Building remains an assumption for many language classes and materials. My hope is that consideration of the evidence will at least reduce Skill Building from the level of axiom to the level of hypothesis.

THE AUTHOR

Stephen Krashen is Emeritus Professor of Education at the University of Southern California. He is best known for developing the first comprehensive theory of second language acquisition, introducing the concept of sheltered subject matter teaching, and as the co-inventor of the Natural Approach to foreign language teaching. He has also contributed to theory and application in the area of bilingual education, and has done important work in the area of reading. He holds a PhD in Linguistics from UCLA, was the 1977 Incline Bench Press champion of Venice Beach, and holds a black belt in Tae Kwon Do.

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