

Raise Your Child's IQ

Exposing children to a wide diversity of topics and vocabulary makes them smarter.

By E. D. Hirsch, Jr.

In 1987, Professor George A. Miller and Patricia Gildea published a report on children's learning that included some experiments in their use of a dictionary to learn word meanings.¹

The normal child's aversion to doing this, Miller found, was amply justified. In the time it took children to find the dictionary word and construe its meanings, they usually forgot the original problem and never found their way back. They mainly experienced frustration.

Their difficulties were exacerbated by the inherent uncertainties and ambiguities of word definitions. As a consequence, children frequently produced sentences like the following.

"Mrs. Morrow **stimulated** the soup." (She stirred it up.)

"Our family **erodes** a lot." (They eat out frequently).

"Me and my family **correlate**, because without them I wouldn't be here."

"I was **meticulous** about falling off the cliff."

"I **relegated** my pen pal's letter to her house."

An advantaged 17-year-old high school graduate usually knows about 80,000 words. That means, from age one, 80,000 words have been learned in 5,840 days, which averages out to about 13 new words a day. How, then, are new words learned?

It turns out that people learn and refine word meanings that they have experienced in the past even when they are not experiencing those words in the present.

The mind unconsciously assigns a word that it encounters to a domain of related words, and on each occurrence of the word, the mind not only refines the meaning of the word being encountered but also the meanings of other, previously-experienced words that belong near its domain.

The unconscious mind is constantly modulating and readjusting all those neighbouring words, even when the conscious mind is not paying attention to the process. This is the key insight about the rapid rate at which people learn words over time.

Although the average rate is amazing, the process is in fact gradual and cumulative. People experience thousands of words a day. The words they are paying attention to are actually refining and calibrating the meanings of previously-experienced words that they are not attending to.

This means that dismissive talk about "mere facts" is hugely oversimplified. Facts, like words, are rarely inert or isolated.

A child's (or adult's) mind is in a constant flurry of subterranean integration and hypothesis-making. And a person's success-rate in making sense of words and facts increases with a person's knowledge.

This brings into relief a critical characteristic of human learning — its gradual and cumulative nature. We extend and refine our knowledge and our vocabulary slowly over time — but only to the extent that we have the opportunity to do so. We cannot extend our knowledge if we are not being exposed to new knowledge.

Most of the unusual words which educated people know are words that are rarely heard in ordinary conversation. Consequently, we should encourage children to read in a wide diversity of topics in order to build up their treasury of knowledge and words.

It is thus important to take great care in the books we make available, assign, and recommend to students. The ongoing, cumulative process of building knowledge and vocabulary cannot be replaced by brief incursions into the dictionary or the Internet.

To the extent that other forms of learning follow this same slow pattern of accretion, it follows that we should provide young children with a broad curriculum in the early grades in order to build their vocabulary and general knowledge.

The critical academic difference between advantaged and disadvantaged children is a difference in vocabulary size. Imparting broad knowledge to all children, starting in preschool, is the best way to enable all children to acquire a broad vocabulary and more generally achieve equality of educational opportunity.

The evidence for a broad curriculum in the earliest grades is strengthened by the finding that students cannot learn or probe deeply into material that is largely new to them. The most effective learning environment is one that guides a student through manageable, incremental advances in knowledge.

One of the most important principles of psychology is that knowledge builds on knowledge. The more you know, the more readily you can learn something new, because you have a lot more analogies and points of contact for connecting the new knowledge with what you already know.

Another way of stating this is simply to say that the more you know, the smarter you are. Students become more intelligent when they know more.

(Adapted with permission from Dr. Hirsch's closing address to the Ninth Annual Core Knowledge Conference. Dr. Hirsch is the author of Cultural Literacy.)

¹ "How Children Learn Words", *Scientific American*, Sept. 1987, pp. 94-99