

The Secret of Success

The best way to help kids get ahead is to expand their vocabulary and general knowledge.

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Progressive educators are very fond of saying that detailed information need no longer be taught since it can readily be gained from reference books and the Internet. But this is not at all the experience of Core Knowledge teachers.

On the contrary, factual knowledge has made our students more engaged and curious than they were before. On museum visits, teachers notice the difference between kids who formerly ran around randomly pushing buttons and children who become deeply absorbed in the museum experience because they already know a lot about what they are seeing.

There is a consensus in cognitive psychology that it takes knowledge to gain knowledge. Those who repudiate a fact-filled curriculum miss the paradox that de-emphasizing factual knowledge actually disables children from looking things up effectively. It turns out that you can successfully look something up only if you already know quite a lot about the subject.

One might suppose that a novice would learn much more than a master physicist when consulting an encyclopedia entry on planets, since the novice has so much still to learn. Surprisingly, however, it is the expert who learns more that is new and learns it much faster.

This is because the human mind is able to assimilate only three or four new items before further elements evaporate from memory. Because the expert had already assimilated most of the elements being looked up, he therefore needs to pay attention to only one or two novel features that can easily be integrated into his prior knowledge.

In a famous experiment, chess experts could learn a complex new chess position after just a few seconds

exposure, whereas novices could remember very little. That was because the novices had to remember **all** the unfamiliar positions (which the human mind simply can't do), whereas the experts had to notice only a few salient departures from a wealth of positions they already knew.

Especially interesting to those who are concerned with helping schools narrow the achievement gap between social classes is recent work on vocabulary. The biggest academic gap between groups in the early years — a gap that grows ever bigger — is the vocabulary gap.

In the absence of compensatory schooling, this initial disadvantage will grow, because the low-vocabulary child will learn less than the high-vocabulary child when exposed to the same lessons. It is estimated that in order to understand something that is read or heard or looked up, the percentage of already-known words must be around 95%.

To narrow the vocabulary gap requires more systematic teaching of school subjects in the early grades. Vocabulary is a reflection of knowledge. Only when children learn subjects in a cumulative way can they build up their vocabularies rapidly and remedy their deficiencies.

An advantaged 17-year-old high school graduate usually knows about 80,000 words. That means that in the 5,840 days since he turned one, he averaged about 13 new words a day. When things are going well, the child as listener, reader, and speaker is experiencing thousands of words every day and is gradually enlarging and mapping a huge continent of word/meaning associations.

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-gauged 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.

Studies show that the most effective learning environment is one that guides a student through manageable, incremental advances in knowledge. Other studies show that the most effective materials are those which offer the student a relatively small proportion of new content.

Readiness to learn means already knowing a lot of what you are trying to learn. It entails already having the preparatory knowledge that enables further learning to occur.

The more one knows, the more readily one can learn something new, because one has a lot more analogies and points of contact for connecting the new knowledge with what is already known. Another way of stating this is simply to say that the more you know, the smarter you are.

It is often asserted that a student's home environment and socio-economic status are the dominant factors in determining school achievement. But it turns out that an even more important factor is a student's breadth of general knowledge. The correlation between academic achievement and socio-economic status (.42) is only about half the correlation between academic achievement and general knowledge (.81).

General knowledge proves to be more important for learning than parents, peers, and neighbourhood combined. By suppressing disadvantaged students' opportunities to systematically expand their knowledge base, progressive educators are actually diminishing their life chances.

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