

SPOTLIGHT: Vocabulary Development

Interview with Vocabulary Development Expert Andrew Biemiller

Dr. Andrew Biemiller is Professor Emeritus of Developmental Psychology at the University of Toronto and Associate Editor of the Journal of Educational Psychology. He is also a consultant for research groups, publishers, and federal (U.S.) and state agencies, mainly regarding vocabulary development and instruction. Dr. Biemiller's current research activities involve promoting vocabulary and language development in elementary school.

What does recent research tell us about vocabulary development? People acquire words in a fairly predictable order and that makes it possible to decide what words need to be taught to those whose vocabulary is relatively small. The average kid has about 6000 root words by the end of grade two.

Unfortunately, quite disadvantaged kids have about 4000 and kids who are really advantaged have about 8000 at that point. A couple of years later disadvantaged kids have about 6000 words. They have about the same number of words the average kids had at the end of grade 2.

That's why we're so clear that kids learn words in the same order. Some of them are just learning words faster. We need to help kids in the primary grades so that they don't get so far behind.

What do schools do to close the vocabulary gap between advantaged and disadvantaged children? At the present time schools don't do very much to close that gap. Research suggests that a year of schooling has no impact at all on vocabulary growth in the primary grades.

After grade two, basically after kids become literate, there seems to be much less difference in the rate at which disadvantaged and advantaged kids acquire new words. This would suggest that after grade two kids are starting to acquire more words as a result of reading.

The problem is that reading isn't likely to do much for the vocabulary of pre-literate kids – kids up to grade two. In fact, when reading does help later, it's not just because you read. It's because when you encounter a new word it's possible to stop and think about it or ask someone for an explanation.

When you're acquiring language through your ears you can't do that. You can ask questions one-on-one if someone will answer, but kids rarely ask. In particularly disadvantaged homes the words aren't even there to be learned. We need to do more in school. Most kids have the first 2500 words. The words that the disadvantaged kids don't have are the next 2500 words.

Since the research on the importance of vocabulary has been around for so long why haven't schools made a greater effort to incorporate vocabulary instruction into their curricula? There are several reasons. Wesley Becker said many years ago that in schools we're mostly concerned with teaching reading and arithmetic. As long as the kids are making progress with reading, we've been pretty happy.

Many people have said the kids will acquire the vocabulary after they learn to read. However, by the end of grade two, disadvantaged students are already 2000 to 3000 words behind the average. Even if they do a pretty decent job learning vocabulary after that they don't make up the difference.

The vocabulary gap may not get a lot wider. But it doesn't get narrower and the disadvantaged kids remain two to three grades behind. For practical purposes two to three grades behind in vocabulary comes to mean 2 or 3 grades behind in reading comprehension by the time they get to grade four or five.

A kid can look good on reading comprehension in grades one and two because the vocabulary we use in these grades is very restricted. In grade three and four all of a sudden a lot of kids who have done a good job of learning to read can read words put in front of them, but they don't know what the words mean. And then they're in trouble.

So the first reason schools haven't focused on vocabulary instruction in the early grades is that we're busy teaching other things and not teaching vocabulary. The second reason is that we haven't identified which vocabulary words to teach. I think we know the answer to that now, but, by in large there isn't anyone out there using it.

The third reason is that it's very hard to test vocabulary in the primary grades. The methods for testing vocabulary in the primary grades involves one-on-one oral testing. Teachers don't have the time to do it.

Many teachers say they don't have enough time to teach basic reading skills much less time to devote thirty minutes a day to teaching vocabulary. Yes. A teacher who's saying that they're willing to ignore vocabulary because they don't have time for it is saying in effect that it's okay for the kids to wind up two grade levels behind by the end of grade two.

It's hard to confront teachers with that. If we don't teach vocabulary in the primary grades, we are accepting the fact that disadvantaged and advantaged kids are going to be that far apart.

Are there any curricula out there today that integrate vocabulary instruction into the reading curriculum? None that I know of. I think the curricula that are coming out in the next year or two, such as Open Court and Houghton-Mifflin, will include vocabulary instruction.

Most of the new programs that are coming out for approval around 2007/2008 are likely to include a substantial commitment to vocabulary. One major reason for that is the state of California is requiring half an hour of vocabulary work in any program they're going to accept.

What can parents do to help their children increase their vocabulary? It's pretty clear that what's happening in middle class and advantaged homes is that parents (a) are using more different words with their kids and (b) they're stopping to explain what words mean now and then.

If a child has a chance to learn 2 to 4 words a day they'll do alright. Advantaged kids acquire 2 to 4 words a day, whereas a disadvantaged kid may learn just one. I really believe that just briefly stopping to point out what a word means helps...

There need to be more words in the environment. It's very clear that reading a lot to kids is good but it's a heck of a lot better if you stop and explain a few words as you go along. In my view what's really important is letting your child know that they should ask when they want to know a word for something or what a particular word means.

Encourage them to ask and praise them for asking. In a whole lot of homes it's "don't bug me." Kids are to be seen and not heard. Well, kids who are seen and not heard are kids who don't ask a lot about words...

What kinds of books would you recommend reading to young children? Speaking as a parent, I used a lot of Richard Scarry's big word books with my son right around age two. At that age my son loved going through books like that. By another year or two they want more story, but at that age he loved things that were just simple pictures and the words that went with them.

The next stage was books about vehicles and a sentence or two for each vehicle. I really don't know anything better than the Richard Scarry books, though they may exist.

Does seeing the words in print help students to retain new vocabulary words? There's some clinical evidence that from grade one up if you're teaching what a word means you should make sure

they see it and print it as well. On the other hand, the books kids are reading in first grade are unlikely to provide a lot of the vocabulary words kids need to learn.

In kindergarten, first grade and second grade you need to read stories to kids, which are more advanced than the stories they would be reading by themselves. By grade three or four, if the kid's making reasonable progress with print skills, they will be able to read the words they've learned orally. My own data shows that 95% of kids grades three and up can read a lot more words than they know the meanings of.

Are there any book lists that recommend vocabulary-rich books to be read to young children? There isn't a lot out there now. I can give you two practical methods. One method is to use the Dale-Chall list of simple words. This word list contains 3,000 simple, familiar words, which more than 80% of fourth grade students can understand.

In order to determine how advanced a passage is, one can see how many words in the passage are not included in the Dale-Chall list. This is a pretty good method. If 15% of the words are not on list it is a fourth grade level passage. Twenty percent makes it sixth grade and 10% makes it second grade. So you aren't adding very many complex words to get an increase in the difficulty of the passage. That's the quick and dirty method.

I have a book coming out soon which has an explicit list of a couple thousand words we should be worrying about in the primary grades and another 3,000 we should be worrying about with the junior grades. That list is based on testing a large number of kids.

If a word is known by more than 80% of the kids, and that's generally true of the first 2500 words, we don't have to worry about them. Kids learn them. Even second language kids learn them in our experience. If the words are known by less than 40% of second graders we figure those are words to worry about learning at some point after grade two.

The words you worry about the kids really learning are the words that are known by 40-80% of kids. By-and-large the advanced kids know them and the not so advanced kids should learn them. That gives you a target list of words you really worry about during those K, 1 and 2 years. Basically you use exactly the same method for picking words to be used in grades 3, 4, 5 and 6.

Is there anything else that you'd like to add? The truth is that a) vocabulary accounts for a lot of the disadvantages of disadvantaged kids. Especially nowadays, because we're getting better at teaching reading skills. What there's been is almost no attention at all to vocabulary.

As long as you neglect vocabulary you're still going to see disadvantaged kids and second language kids running along two to three grade levels behind the average kids. Not to mention the advanced kids. Until we reach a point of running programs in schools so that the kid who leaves sixth grade can actually read and understand sixth grade texts, we're going to continue to see a whole lot of kids who are just fumbling around in High School.

The need for vocabulary instruction seems to be such a huge blind spot. Yes, it really is. I cannot guarantee that if you get all the kids up to what is now the average of vocabulary that everybody would be able to read and comprehend.

What you can guarantee is that if they don't have that vocabulary they will continue to be falling off the way they do now. I don't think getting the vocabulary solves everything. I do think that without it you're dead in the water.

For more information on Dr. Biemiller's research visit:

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