

What Effect Reading Has on Our Minds

by Martha Brockenbrough

Here are two facts that probably won't surprise you: Reading makes you smarter, and the more reading you do, the better.

Why this is so and how the magic happens, though, is quite interesting.

In a paper called "What Reading Does for the Mind," Anne E. Cunningham, associate professor of cognition and development at the University of California, Berkeley, makes the case that reading:

- increases vocabulary more than talking or direct teaching;
- substantially boosts general knowledge while decreasing the likelihood that misinformation will be absorbed; and
- helps keep our memory and reasoning abilities intact as we age.

How reading increases vocabulary

Where do people learn more of their words? If you're guessing through talking, guess again. Researchers today believe that reading pours more words into your brain than conversation and television.

Cunningham's paper refers to studies that ranked the frequency of 86,741 English words. A word's frequency is how often it appears in speech or writing. In speech, the average word frequency is 400--meaning, when we talk, we are likely to use a small set of frequently occurring words.

Meanwhile, words in children's books, which people think of as being simple little things, have an average frequency of 627. In other words, the language in a children's book is likely to be more sophisticated than your average conversation.

Between fourth and sixth grades, kids are likely to have encountered all but rare words--those ranked below 10,000 on the list.

The only way for them to learn those rare words is to encounter them, and they're far more likely to do that on the printed page.

In a newspaper, for example, 68.3 words per 1,000 are "rare." In children's literature, 30.9 words per 1,000 are rare. On prime-time TV, it sinks to 22.7. In conversations between college graduates, it's even lower--17.3 words per 1,000.

So even if a child is talking with well-educated parents, her best shot at expanding her vocabulary is by reading.

How reading boosts general knowledge

It's true that the smarter you are, the more stuff you know.

But when adjusted for four factors--grade-point average as well as scores on intelligence, math, and reading-comprehension tests--how much you read was shown to have a big impact on how much you know (and, by extension, how smart you are).

People who read more were more likely to know about how carburetors work, what vitamin is found in concentrated forms in citrus fruits, and other general facts. Regardless of general abilities, the people who read more knew more.

Equally important, they were less likely to have been sucked in by misinformation. In a really interesting test, they asked 268 college students how many of the world's people are Muslim vs. Jewish. Almost 70 percent of these smart college kids thought Jewish people outnumbered Muslims. Actually, there are about 20 million Jewish people and more than 800 million Muslims.

Cunningham found that the more TV participants watched, the more likely they were to get that question wrong. But the more they read, the more likely they were to get the answers right. General intellectual ability didn't matter here--the amount of reading vs. television consumption did.

It's not just that you learn more through reading; you can learn some incorrect things with imbalanced television coverage that isn't uncommon on prime-time TV.

How reading protects your mind

When you pit senior citizens against college students in general knowledge and vocabulary, the oldsters win out.

But college students beat their elders when it comes to memory and tasks that involve logic and deductive reasoning. Except, that is, when controlled for the amount of reading those people do. There, the results pointed toward the notion that reading a lot can compensate for the wear and tear time can put on a mind.

If only reading could also prevent the ravages time wreaks on the body.... But alas, I've tried, and even lifting a Harry Potter book only did so much.

Still, it's eye-opening--especially for a parent of a new reader--to grasp how big a difference reading can make, and how important it is for a child to have early success and positive feelings about reading. Cunningham also showed those had a direct impact on a person's likelihood of becoming a bookworm.

"An early start in reading is important in predicting a lifetime of literary experience," Cunningham writes. "It means that students who get off to a fast start in reading are more likely to read over the years, and, furthermore, this very act of reading can help children compensate for modest levels of cognitive ability by building their vocabulary and general knowledge."