



Prior Knowledge Plays a Large Role in Reading Comprehension

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The most important factor in determining how much readers will comprehend and how well writers will be able to communicate about a given topic is their level of knowledge about that topic (interest in the topic is also important but often is related to prior knowledge). The importance of prior knowledge to comprehension and communication is included in virtually all modern theories of reading (Anderson & Pearson, 1984; Pressley, Wood, & Woloshyn, 1992; Spivey, 1996). According to schema theory, prior knowledge provides a schema—a framework or structure—that helps thinking. Readers familiar with sports, for example, know that a baseball game has nine players on each side, that the players field different positions, and what players in each position are supposed to do. The writer considers these baseball basics to be "general knowledge" and, thus, does not explicitly explain them in a book or article about baseball. Readers who "know" baseball can listen to or read about a game and have little difficulty comprehending descriptions of games, plays, and so on. These readers literally carry in their heads a schema for baseball. They can envision the field, the baselines, the batter's box, and the dugout. They understand this technical vocabulary and much more. When they hear or read about a "double play," a "slider," a "blooming single to right," a "pick-off attempt," or a player "safe at first," these readers create mental images from the frameworks they possess. In contrast, readers whose prior knowledge of baseball is limited or nonexistent can read the same words and descriptions but not have the foggiest idea of what is going on.

Because comprehension and communication are so dependent on prior knowledge, children whose knowledge of a topic is limited have difficulty comprehending much of what they read and difficulty communicating in writing about that topic. And children who read little have the least opportunity to acquire new knowledge through reading.

Schools must be responsible for helping children learn about the world in which they live. When you think about what we teach children in schools, you can divide almost everything into two categories: knowledge and skills. The abilities to read, spell, write, do math, use the computer, sing a song, play the clarinet, throw a ball, and speak a foreign language are all skills—things you can do. The understandings that there are seven continents, each state has two senators, the Civil War was fought in the 1860s, mammals are warm-blooded

animals, and Martin Luther King, Jr., led the civil rights movement are all knowledge—things that you know. For many years, literacy instruction in elementary schools has focused on skills and largely ignored knowledge, particularly deep knowledge of topics. In many schools with large numbers of struggling readers, teachers are instructed to "teach the basics." The basics usually refer to the three R's—reading, 'riting, and 'rithmetic. The knowledge part of the curriculum, usually found in the subjects of science and social studies, are almost ignored in the primary grades of these schools.

Emphasizing the skill subjects and excluding the knowledge subjects often results in a short-term gain and a long-term deficit. Test scores in schools that emphasize skills in grades K–3 indicate that children do well through the second or third grade but test scores decline from fourth grade on. After third grade, teachers are supposed to, and do indeed try to, teach the knowledge subjects such as science and social studies. They often find, however, that even their average students can't read the textbooks or "can read them but not understand what they are reading." Children who can read the words but can't understand what they are reading are not really reading. These children who "have the skills" but who lack needed prior knowledge of critical school topics are a legacy of a primary grades curriculum that required teachers to spend all their time "on the basics."

This knowledge deficit, which usually rears its ugly head in third or fourth grade, does not disappear as children move through school. The Scholastic Achievement Test, which claims to predict how well students will do in college, is very dependent on prior knowledge. Our failure to raise SAT scores in spite of two decades of educational reform may be one of the clearest indicators that schools have focused more on skills development than on expanding children's knowledge of the world.