The Missing Piece of the Comprehension Puzzle

1. Discuss a time when a lack of background knowledge made it difficult to learn something new. For example, you may have needed to set up a new component to your entertainment system, or you may have taken a few lessons on using a new computer program. How did your lack of background knowledge impede your learning? How did you build your background knowledge so you could be successful?

2. When matching text to students, teachers typically consider several factors, including the readability level of the text and the reading ability of the students. However, they rarely consider background knowledge in anything more than a superficial way. Can you recall times when a student's background knowledge positively affected his ability to read a book that otherwise would have been considered too difficult? What about the reverse situation—a time when the lack of background knowledge interfered with the comprehension of an otherwise understandable text?

3. Bardeen and Lederman (1998) found that physics principles govern other scientific concepts, such as osmosis in biology and molecular structures in chemistry. Others disagree. Sadler and Tai (2007) performed a large-scale study of eight thousand college students and found that sequence did not predict grades in introductory science courses, but the number of years of high school mathematics did. How might background knowledge play a key role in both of these otherwise contradictory findings?

4. In what ways do you foster transfer (application of new learning to novel situations) in your teaching? What conditions make it more successful? Under what circumstances does transfer break down?

5. How has the availability of vast amounts of background knowledge available on the Internet influenced learners in your classes? What do you see as the positive aspects as well as the possible drawbacks to such availability?

6. Vocabulary and background knowledge are intertwined. How do you use vocabulary knowledge as a way of determining background knowledge? How does the degree of vocabulary knowledge serve as a proxy for background?

7. Background knowledge is one thing; retrieval of that information is another. What do your students seem to remember best?