

### On the Road to Self-Regulation

Metacognitive research has long supported the conclusion that successful metacognitive thinking requires three types of knowledge: declarative knowledge, procedural knowledge, and conditional knowledge (Nist & Simpson, 2000). As seen in the examples drawn from the first protocol, the participants all appeared to possess some declarative knowledge of certain strategies, such as knowing that prior knowledge could be linked to the text, yet they lacked procedural and conditional knowledge. Such limitations in strategy knowledge can be seen in Liz's first protocol, as she focused on a single word within a paragraph and digressed into an unrelated story:

**“There, after “1880,” [sic] they saw the giant Statue of Liberty in the harbor. The statue was a gift from France to the United States. The Statue of Liberty became a symbol of hope and freedom offered by the United States.”**

*I remember in fifth grade we did this play, and because I was the tallest one in the class, I was the Statue of Liberty. It was so funny.*

Liz appeared to possess a declarative knowledge of connecting her personal schema with the text but seemingly did not understand how to use this strategy appropriately or to know where its use might be most beneficial. The participants' procedural and conditional knowledge was bolstered at the end of the study, as their use of strategies was better suited to the particular text. An example of appropriate usage of a strategy can be seen in the following excerpt from Mark's second think-aloud:

**“Children assimilated more quickly than parents.”**

*I was just gonna say that, that adults, they—because they're so much older than kids, so they know what they know, and kids have more time to develop the American way.*

**“They learned English in schools and then helped their families learn to speak it. Because children wanted to be seen as Americans, they often gave up customs their parents honored.”**

*I work in a supermarket now, and whenever a Spanish family or a Mexican family comes in, it's always the kids speak English and the parents don't.*

In this instance, Mark not only connected his personal schema to make the text more concrete for himself, but he drew out an inference as well. Both strategies were used appropriately, and Mark's thoughts

confirmed the author's intended message.

Liz, too, used her personal schema appropriately in the same section of text:

**"Children assimilated more quickly than their parents. They learned English in school and then helped their families learn to speak it."**

*I know it's a lot harder to learn a language that you're not used to when you're older, 'cause I remember they started teaching me Spanish in high school and not in middle school or elementary school, and it was a lot harder for me, but my brother and sister are learning it right now in elementary school, and they know it five times better than I do.*

Each participant's second protocol was complete with similar examples demonstrating strategies used at the appropriate time and place to deepen their understating of the text. Their thoughts in the second think-aloud appeared more authentic, as opposed to forced. This finding was of particular importance to the study, as research suggests that "students will transfer a strategy to their tasks if they possess the 'how to employ' or procedural knowledge of that strategy and the 'why and when to use' or the conditional knowledge" (Simpson, Stahl, & Francis, 2004, p. 3).