

poorly behaved children. But context also plays a part. Teachers may expect less of the same individual in a generally high-achieving class than in a class that performs less well overall.

Although the self-fulfilling prophecy (Rosenthal and Jacobson, 1968)

has had a considerable influence in schools over the past 20 years, recent ev-

idence has shown that what teachers do (or fail to do) matters more than

what teachers expect with regard to student achievement. Goldenberg (1992)

described two cases of paradoxical expectancy in which the children's first

grade, year-end achievements were in marked contrast to what the teacher

had expected. He concluded in one case that "The teacher had failed to take

corrective action when she should have because she had expected [the student]

to do well on her own" (Goldenberg, 1992, p. 539). In the other case, "in spite

of the teacher's low expectations for [the student's] success, the teacher took ac-

tions that appear to have influenced [her] eventual first-grade reading

achievement.... Low expectations were clearly evident, but they were irrele-

vant in determining the teacher's actions" (p. 539). Although expectations

can have an influence on teacher behavior, then, they do not always matter.

What appears to be more important is whether the instructor monitors stu-

dent achievements and takes corrective action as necessary.

Sensory memory, attention, and pattern recognition, while important,

obviously tell only part of the story. When learners have paid sufficient at-

tention and pattern recognition of selected portions of the stimulus has oc-

curred, a great deal more processing is still required for the information to

become a meaningful and permanent part of memory. The next stage of ac-

tivity occurs in working memory.

## Working Memory

Information selected for further processing comes to the working memory. At this stage, concepts from long-term memory will be activated for use in making sense of the incoming information. But, as indicated earlier in the chapter, there are limits to how much information can be held in working memory at one time and for how long information may be retained there, unless, of course, something is done to increase capacity or duration in some way. In a now classic study of short-term memory, George Miller (1956) demonstrated that about  $7 \pm 2$  numbers could be recalled in a digit-span test. This test consisted of reading subjects a list of numbers and asking them to immediately repeat what they had heard. With seven items being the typical memory span, is it any surprise that local phone numbers are exactly seven digits? Miller also whimsically wondered whether there are magical qualities to the number 7; after all, there are "the seven wonders of the world, the seven seas, the seven deadly sins, the seven daughters of Atlas in the Pleiades, the seven ages of man, the seven levels of hell, the seven primary colors,