theory is likely to find it necessary to pay close attention to both his instructor and the textbook.

Finally, the ability to control attention, in both a general and specific sense, appears to differ with age, hyperactivity, intelligence, and learning disabilities (Grabe, 1986, p. 66). For example, attention deficit disorder is a condition afflicting a small proportion of preadolescent children. They seem to be unable to focus attention or to turn off irrelevant stimulation. As a result, their school performance typically suffers.

How, then, is attention best managed in instructional situations? To influence attention or alertness of students during the course of a classroom lesson, Good and Brophy (1984) recommended that instructors employ standard signals (e.g., "Let's begin," "Back on task!," turning the lights on or off). A third grade teacher of my acquaintance uses a maraca to gain the attention of all students when they are working in pairs or small groups. Because he has used that signal from the first day of class, students know when they hear it that they are to stop whatever they are doing and look at him for direction.

When it is important to focus students' attention on certain aspects of the instructional materials, stimulus features can be highlighted through the use of color or type of print (in textual materials), voice inflections or gestures (in classroom presentations), and novelty. To emphasize the different sorts of roles that computer consultants often play, for example, a community college teacher wears different hats during his lecture, each one representing a different role.

Finally, Grabe (1986) reviewed ways in which learners themselves may be taught to stay on task and selectively attend to important features of instruction. He indicated that two things appear to be important: (1) Learners should be taught to take more time in responding to a learning task (to reduce impulsiveness), and (2) they should be given a strategy for focusing attention and allowed to practice that strategy (p. 74). Certain games that require attention, e.g., *Concentration* or *Simon Says*, can be used to help students develop better attending skills.

Automaticity

When tasks are overlearned or sources of information become habitual, to the extent that their attention requirements are minimal, **automaticity** has occurred. Driving a car provides a good example of the distinction Shiffrin and Schneider (1977) made between automatic and controlled processing. For the most part, the driving task is automatic, enabling the driver to listen attentively to a radio program, for example. But when traffic is heavy or something unusual occurs to demand the driver's attention, driving shifts to a controlled process. The driver then must pay much closer attention to driving and fails to hear what is being said on the radio.