

Authentic assessment (sometimes called *alternative assessment*) requires students to use higher-level thinking skills to perform, create, or solve a real-life problem, not just choose one of several designated responses, as on a multiple-choice test item. A teacher might use authentic assessment to evaluate the quality of individual and small-group projects, video-recorded demonstrations of skills, or participation in community-based activities. In science, for example, students might design and conduct an experiment to solve a problem and then explain in writing how they solved the problem.

Authentic assessments require students to solve problems or to work on tasks that approximate as much as possible those they will encounter beyond the classroom. For example, authentic assessment might allow students to select projects on which they will be evaluated, such as writing a brochure, making a map, creating a recipe, writing and directing a play, critiquing a performance, inventing a working machine, producing a video, creating a model, writing a children's book, and so on. Authentic assessment also encourages students to develop their own responses to problem situations by allowing them to decide what information is relevant and how that information should be organized and used. In this chapter's *Leaders' Voices* article, "Moving up from Mediocre," Nick Myers and Ed Rafferty, both superintendents, explain how professional learning communities (PLCs) enable teachers to develop curricula based on authentic pedagogy—PLCs enable "schools to identify growth opportunities and the specific instructional strategies they will implement to bring about desired results."

### Cognitive Science

By adding to our understanding of how people think and learn, research in the field of cognitive science has contributed to the development of cognitive learning theories. Drawing from research in linguistics, psychology, anthropology, and computer science, cognitive scientists study the mental processes learners use as they acquire new knowledge. Often, cognitive scientists develop computer flow charts to illustrate how learners use their short- and long-term memory to manipulate symbols and process information.

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### Curriculum Leadership Strategy

Periodically review the curriculum to ensure that it addresses not just the cognitive realm, but also the affective and psychomotor realms.

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### Gestalt-Field Views of Learning

During the first few decades of the twentieth century, several psychologists in Germany—and later in the United States—began to look at how learners organize information into patterns and wholes. *Gestalt* is a German term meaning "configuration" or "pattern," and Gestalt theorists maintain that "wholeness" is primary; one should start with the total aspects of a learning situation and then move to particulars in light of the