

whole. Thus, obtaining an “overview” is often an important step in learning, for without it we may be, as the popular saying goes, “unable to see the forest for the trees.”

Another major element of the Gestalt view of learning is that the whole is always greater than the sum of its parts. Experiencing a moving symphony is more than hearing individual musical notes; watching a movie is more than looking at the thousands of individual still pictures that make up the movie. The nature of the whole determines the meaning of its parts, and individual perceptions determine meaning.

### Constructivist Learning Theories

Since the mid-1980s, several educational researchers have attempted to identify how learners *construct* understanding of new material. Constructivist views of learning, therefore, focus on how learners make sense of new information—how they construct meaning based on what they already know. In part, the roots of constructivism can be traced back to Gestalt views of learning in that learners seek to organize new information into meaningful wholes.

According to constructivism, “students develop new knowledge through a process of *active construction*. They do not merely passively receive or copy input from teachers or textbooks. Instead, they actively mediate it by trying to make sense of it and relate it to what they already know (or think they know) about the topic” (Good & Brophy, 2003, p. 398). Constructivist-oriented curricula and instructional strategies focus on students’ thinking about the material to be learned and, through carefully thought-out prompts and questions, enable students to arrive at a deeper understanding of new material. Among the common elements of constructivist approaches to curriculum and teaching, research has identified the following effective practices:

1. The curriculum is designed to equip students with knowledge, skills, values, and dispositions that they will find useful both inside and outside school.
2. Instructional goals emphasize developing student expertise within an application context and with emphasis on conceptual understanding of knowledge and self-regulated application of skills.
3. The curriculum balances breadth with depth by addressing limited content but developing this content sufficiently to foster conceptual understanding.
4. The content is organized around a limited set of powerful ideas (basic understandings and principles).
5. The teacher’s role is not just to present information but also to scaffold and respond to students’ learning efforts.
6. The students’ role is not just to absorb or copy input but also to actively make sense and construct meaning.
7. Students’ prior knowledge about the topic is elicited and used as a starting place for instruction, which builds on accurate prior knowledge and stimulates conceptual change if necessary (Good & Brophy, 2003, pp. 420–421).

A common element of constructivist approaches to curriculum planning and teaching is known as *scaffolding*—that is, providing learners with greater support during the early phases of learning and then gradually reducing support as their competence and ability to assume responsibility increase. The concept of scaffolding is based on the