

information so that learners could more easily develop appropriate schemata and mental models.

Comparative Organizers and Elaboration. Ausubel (1963) deplored the common practice of textbook writers to compartmentalize ideas or topics into separate chapters without exploring their relationships. The result, he claimed, is “incalculable cognitive strain and confusion” on the part of the learner. Students may not see, for example, how new propositions differ in substance from what they already know, causing them to dismiss the new information as unimportant. Or, they may fail to see inherent similarities or differences among concepts in the learning material itself. In this case, misconceptions are likely to result.

Consider, for example, the principles of behavior management that you studied in Chapter 2. Because there are similarities among principles that result in behavior increase (e.g., positive reinforcement, Premack principle), and among those that result in behavior decrease (e.g., punishment, extinction), these principles can be easily confused. Moreover, many learners experience confusion with negative reinforcement, which sounds like an oxymoron. The concept negative is closely associated in everyday life with aversive events, which seems to connote punishment, whereas reinforcement positively influences behavior.

To help make similar concepts more easily discriminable, Ausubel suggested the comparative organizer, which provides a means for systematically comparing and contrasting concepts. The concept tree and rational set generator depicted in Chapter 3 are examples of comparative organizers. Providing organizers to learners is one means of facilitating learning of unfamiliar, and potentially confusable, information (e.g., Ausubel & Fitzgerald, 1961; Ausubel & Youssef, 1963), but so is having learners generate them using frames such as that shown in Figure 4.7 (West et al., 1991). Mr. Amaya might find the technique especially useful in his lesson on democracy.

To enhance the stability and clarity of anchoring ideas in cognitive structure, and thus facilitate learning of information related to those ideas, Ausubel recommended starting instruction with the most general and inclusive ideas and progressively elaborating them. Ausubel called this process progressive differentiation, but Reigeluth adopted it as elaboration in his Elaboration Theory (Reigeluth, 1979, 1999; Reigeluth & Stein, 1983). According to Elaboration Theory, progressively more detail is to be elaborated in each level of instruction (from the most general, inclusive content to the most specific) until the desired level of detail is reached. The specific sequence chosen for instruction depends on which type of domain expertise is desired. Reigeluth (1999) distinguished between conceptual expertise (understanding what) and theoretical expertise (understanding why) and suggested that the general-to-detailed sequence is different for each (p. 437). In Mr. Amaya’s class, for instance, it is likely that conceptual understanding is being

Description of function	
United States	
Great Britain	

FIGURE 4.7 A Comparative O