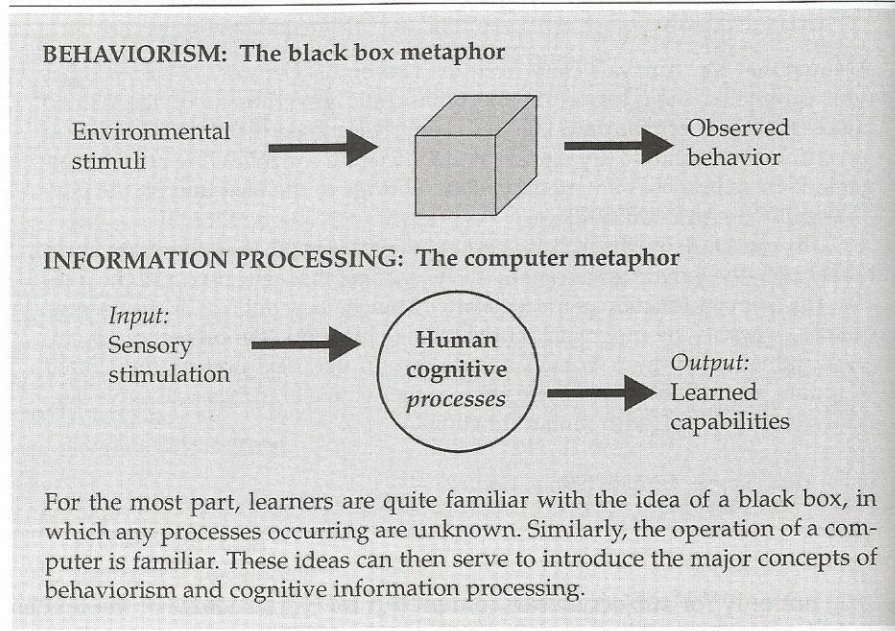


BOX 4.2 • *An Advance Organizer for Theories of Learning*

In addition, "Authors can help readers access the appropriate textual schemas by (a) organizing the textbook using conventional text structures—the basic text structures and/or more genre- or content-specific text structures and when these are known and appropriate, and (b) clearly signaling the text organization" (Armbruster, 1986, p. 258).

Armbruster reviewed research in which certain types of signals appeared to be effective in emphasizing certain types of text structures. For example, additive conjunctions (e.g., also, likewise) can be useful in signaling compare/contrast text structures, whereas causal conjunctions (e.g., consequently, as a result) are likely to be effective with cause/effect text structures. To help readers access or construct relevant content schemata, Armbruster (1986) concluded that current research suggests (1) the "judicious use of analogies or comparisons" (p. 261), and (2) the presentation of "well-developed concepts and thorough explanations that make explicit the important relationships among ideas" (p. 264).

Signaling the appropriate schema for word problems can also be a factor in learning arithmetic (e.g., Greeno, 1980; Sweller, Mawer, & Ward, 1983; Cooper & Sweller, 1987; Derry, Hawkes, & Tsai, 1987). Sweller (1989) asserted that a schema, if available, provides for rapid and relatively effortless problem solving. In the absence of an appropriate schema or in the case

of incorrect classification will be used instead.

This suggests that recognizing and representing thought students a diagram in arithmetic. Fuson could successfully teach structure of addition a conventional strategy be many of problems.

An issue in problem load. That is, learners appropriate schema or mental instruction minimizes cognitive load. For example, states rather than state. A goal-free problem "calculating as many as" which is the ultimate cognitive load in simple and partially finish solving (Sweller).

Finally, because in terms of schemata—consider how schema instructional situation sample, found his schema tests in the United response on multi-graduate school in the and correct. Needless increasingly multicultural international settings, schema learners may be

Walking Instruction

When learners encounter comes an impossible way to judge what knowledge meaningful information they will approach it instruction was to im schema theorists look