

appropriate at the time. However, didactic and constructivist instruction represent two quite different philosophies of instruction and theories of learning. Figure 2.1 is designed to identify the differences between these two approaches to teaching and learning. The table is an extension of ideas presented in Sandholtz, Ringstaff, and Dwyer (1997, p. 14). The listed topics are grouped into three areas: Curriculum, Instruction, and Assessment. There is substantial overlap among these three categories, so in many cases the assignment to a particular category is somewhat arbitrary.

FIGURE 2.1

Comparing didactic and constructivist instruction.

Educational Component	CURRICULUM	
	Didactic Curriculum	Constructivist-Based Curriculum
Concept of knowledge	Facts. Memorization. Discipline specific. Lower-order thinking skills.	Relationships. Inquiry and invention. Higher-order thinking skills. Represent and solve complex problems, drawing on multiple resources over an extended period of time.
IT as content	Taught in specific time blocks or courses that focus on IT.	Integrated into all content areas, as well as being a content area in its own right.
IT as tool	IT facilities available in a computer lab or library. Use not integrated into everyday activities.	IT facilities available in the classroom as well as elsewhere. Use is integrated into the routine of the class day.
Information sources	Teacher, textbooks, traditional reference books and CD-ROMs, use of a limited library, controlled access to other information.	All previously available information sources. Access to people and information through the Internet and the Web.
Information-processing aids	Paper, pencil, and ruler. Mind.	All previously available aids to information processing. Calculator, computer, computerized instruments.
Time schedule	Careful adherence to prescribed amounts of time each day on specific disciplines.	Time scheduling is flexible, making possible extended blocks of time to spend on a project.
Problem solving. Higher-order thinking skills.	Students work alone on problems presented in textbooks. Problems are usually of limited scope. Modest emphasis on higher-order thinking skills. Students tend to equate the word "problem" with "math problem."	Students work individually and collaboratively on multidisciplinary problems. Problems are typically broad in scope, and students pose or help pose the problems. Substantial emphasis on higher-order thinking skills.
Curriculum	Focus on a specific discipline and a specific, precharted pathway through the curriculum.	Curriculum is usually interdisciplinary, without a precharted pathway. Different students study different curriculums.