

elaboration of supporting material. During a formal lecture, the speaker's purpose is to inform, to persuade, or to entertain with little or no verbal participation by the students. When using a teaching lecture, the instructor plans and delivers an oral presentation in a manner that allows some participation by the students and helps direct them toward the desired learning outcomes.

## Demonstration-Performance Method

This method of teaching is based on the simple, yet sound principle that we learn by doing. Students learn physical or mental skills by actually performing those skills under supervision. An individual learns to write by writing, and to fly a balloon by actually performing flight maneuvers. Students also learn mental skills, such as speed reading, by this method. Skills requiring the use of tools, machines, and equipment are particularly well suited to this instructional method.

Every instructor should recognize the importance of student performance in the learning process. Early in a lesson that is to include demonstration and performance, the instructor should identify the most important learning outcomes. Next, explain and demonstrate the steps involved in performing the skill being taught. Then, allow students time to practice each step, so they can increase their ability to perform the skill.

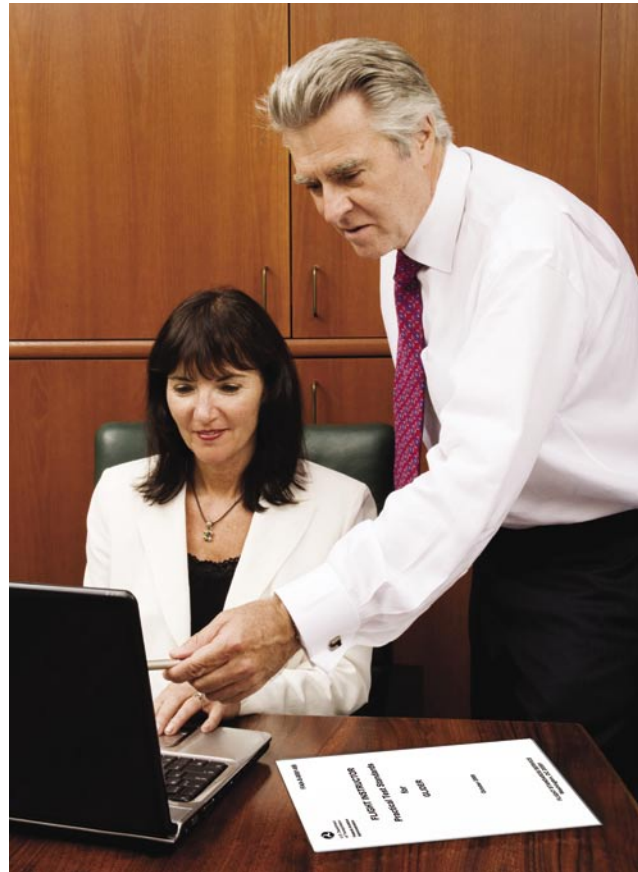
The demonstration-performance method of teaching has five essential phases:

- **Explanation Phase**—explanations must be clear, pertinent to the objectives of the particular lesson to be presented, and based on the known experience and knowledge of the student. In addition to the necessary actions to be performed, the instructor should describe the end result of these efforts.
- **Demonstration Phase**—the instructor must show the student the actions necessary to perform a skill.
- **Student Performance and Instructor Supervision Phases**—these two phases, which involve separate actions, are performed concurrently, and are thus described under a single heading. The first action is the performance by the student of the physical or mental skill that had been explained. The second is the instructor's supervision, insuring that errors are immediately corrected to standards already prescribed.
- **Evaluation Phase**—in this final phase, the instructor judges student performance. The student performs whatever competence has been attained, and the instructor evaluates and discovers just how well the skill has been learned. Form this measurement of

student achievement, the instructor determines the effectiveness of the instruction.

## Computer-based Training

Many new and innovative training technologies are available today. One of the most significant is computer-based training (CBT)—the use of the personal computer as a training device. [Figure 10-10] CBT is sometimes called computer-based instruction (CBI). The terms CBT and CBI are synonymous and may be used interchangeably.



**Figure 10-10.** *The instructor must continually monitor student performance when using CBT, as with all instructional aids.*

Common examples of CBT with specific application to balloon flight training include the computer versions of the test prep study guides which are useful for preparation for the FAA knowledge tests. These programs typically allow the students to select a test, complete the questions, and find out how they did on the test. The student may then conduct a review of questions missed. An excellent resource for balloon training is the web site [webexams.com](http://webexams.com); this provides the student with the ability to take practice exams, which assists in determining weaknesses in training.